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AN OL' TIMER Reminisces—

YEP, I REMEMBER way back when the oil industry was just a pup. It's growed a heap since those days and as I sort of look back now and take inventory of myself, I guess I must have growed along with it.

Why I remember when my boss first designed me. He figgered the industry needed a strong, safe tool that would run through a mighty small diameter casing and then would enlarge the open hole below the pipe to a sight larger diameter . . . and he really turned the trick. Just look at me now, why by using only 6 bodies, I have a reamin' range of from 4" to 36" . . . *and that's some reamin'*. As I remember it they had quite a time of namin' me. But finally they christened me the "Baker Rotary Wall Scraper." Somehow that name just stuck and I've been sort of proud of the fact that I was the first tool of my type to be called a "Wall Scraper." Of course they have improved me a lot since the early days. One of the first things they did was to fix me up with one of those Circulation Screens. Yep, it was the first time a tool like myeslf was designed with one of those thingamajiggs. Then, of course, they studied various types of alloys and picked the one to make me out of that was *strong, tough* and *wear resistant*. They fixed it so's my blades positively open and close . . . no chance to get me stuck down in a hole. And say, speaking of blades, they really wear. It's sort of a secret but I'll tell you why (the blades are hard-faced with this here borium stuff which sure gives 'em long life) . . . and they're easy to change too . . . only takes a few minutes.

It seems like every year the boys in the field find a new use for me and while I'm not much of a hand to do a lot of braggin', I am kept mighty busy helping to—

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Well, I'm just about talked out, but if you'd like to have some more information, let me give you a tip . . . my boss has just completed a *New 40 page treatise* (called the Baker Broadcast No. 19) which covers all my important uses and applications. It's a real education and a copy is yours for the askin'.

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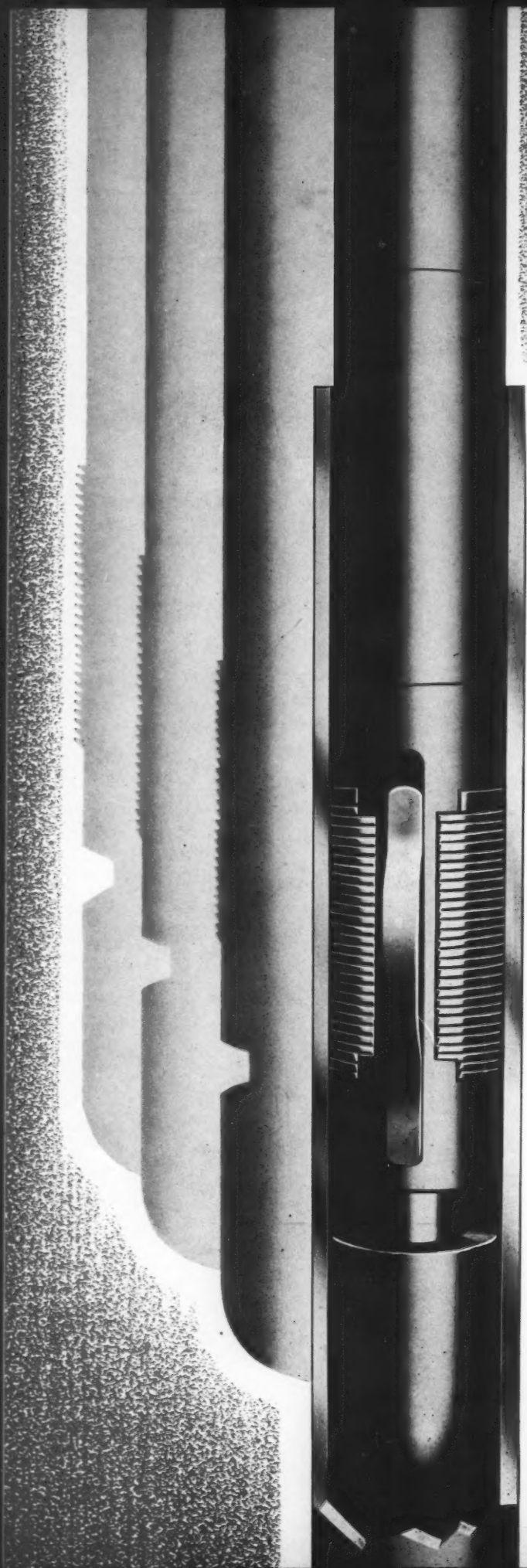

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CALIFORNIA
OIL WORLD
and Petroleum Industry

THE AUTHORITY ON THE CALIFORNIA OIL INDUSTRY

JUNE 5, 1938
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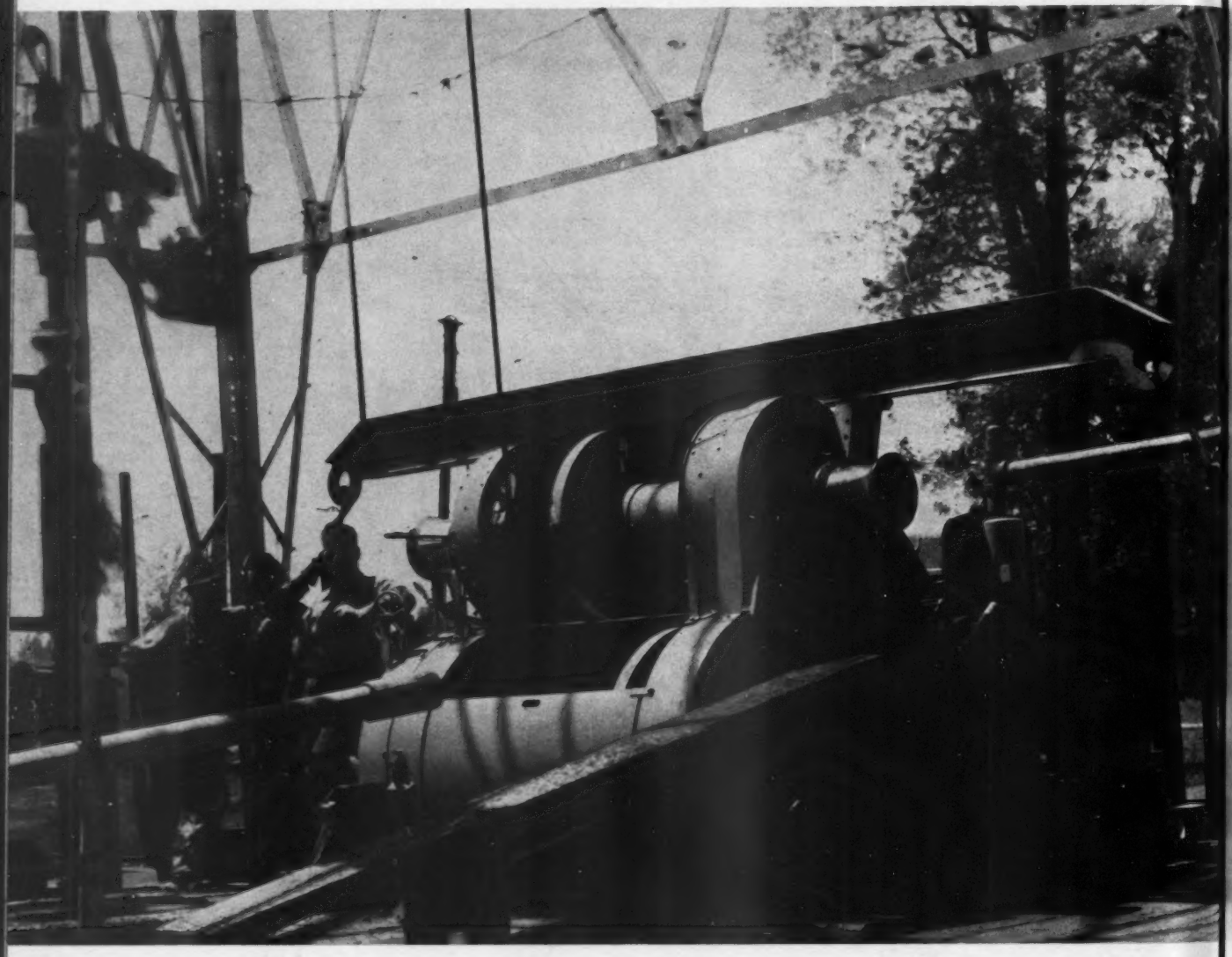

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California Tidelands Saved For State

Sound Warning For Constant Vigilance

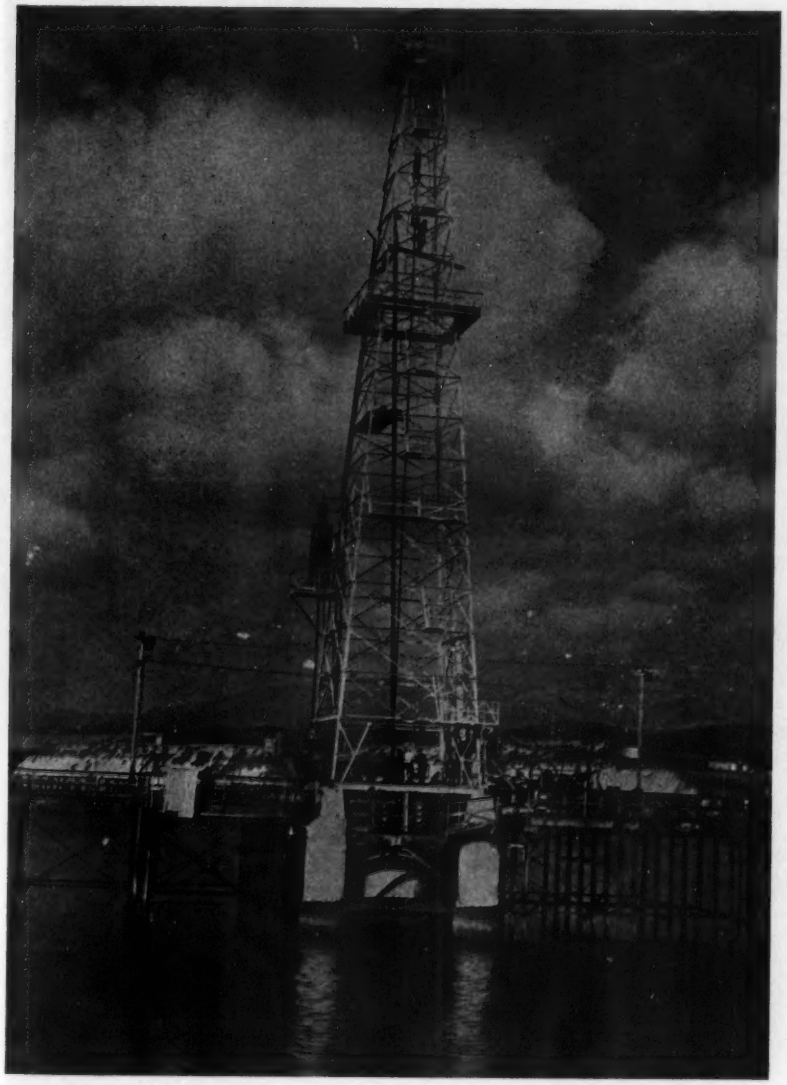
This is the story of what has apparently been a successful fight to save the California tidelands for California, and stop the Federal government from claiming title to them.

In chronological order, the developments were:

Senator Gerald P. Nye, in the last session of Congress introduced a resolution (S. J. R. 208) which directed the attorney general of the United States to make an investigation into the possibility that the Federal Government might own sub-sea oil and minerals lying between the low water mark and the three mile limit along the continental boundaries of the United States. The resolution, in this form, passed the Senate and went to the House.

In the House, it was referred to a subcommittee of the Judiciary Committee, where the changes and amendments that were to stamp it as an unwarranted attack upon the State of California began.

Instead of being an authorization to the Attorney General to investigate possibilities, the resolution in the hands of this committee was amended to become instructions to the Attorney General to institute necessary proceedings to claim the tidelands, and instead of applying to the United States boundaries as a whole, the matter was restricted to California only. In this form, the Judiciary Committee favorably reported it in a ten to eight vote, and it was referred to the rules committee.



As soon as this action was made known, protests from all quarters of California were rained upon the heads of the Rules Committee, the Judiciary Committee, and the California Congressional delegation. Governor Merriam, in a telegram to Hatton W. Sumners, chairman of the Judiciary Committee, characterized the resolution as an "affront to the people of the State of California" and as an unprecedented attack upon the state's sovereignty.

State Attorney General U. S. Webb, in a series of announcements on the subject, said that a long series of court decisions had held that California was the sole owner of the tidelands bordering the state, and that the state was prepared by every legal means at its command to stop this encroachment of Federal power.

A meeting was called at the offices of the Oil Producers Agency in Los Angeles, in response to many telephoned requests from interested oil operators, royalty owners, and landowners, and the 100 state officials and others interested who attended that meeting immediately took steps to organize an effective campaign to stop further action by Congress.

An executive committee of 12, the nucleus of the California Tidelands Association, was formed, with David R. Fairies, local attorney, as chairman. This committee, now the executive committee of the California Tidelands Association, has single-handedly carried on the campaign against the Nye resolution on this basis:

1. It is an unwarranted encroachment upon state's rights.
2. It negates a series of court decisions dating from 1873, all of which have held that the tidelands off California have belonged to the state, and in fact were transferred to the state with its admission to the Union.
3. It is a matter of far reaching importance than its immediate effect upon the California oil industry.
4. It would cloud the titles to all filled-in lands along the coast, and on all riparian lands bordering navigable streams.
5. It is but the first step in similar procedures against other lands in other states.

It is of intereset to note that the original agitation to have the Federal government assert title to California tidelands did not come from the Federal government itself. The stimulus to the move was given by a group of individuals in California who, for a period of several years, have regularly been filing appli-

cations for permits to tidelands, particularly at Huntington Beach, and who have just as regularly been turned down in these applications by the Department of the Interior, the Department's stated opinion being that the tidelands were the property of the state, hence the Department had no jurisdiction and could not issue permits on them. This group, balked by the Department of the Interior, turned to political activity, petitioning Congress, and filing briefs with its members, which briefs were designed to show that because of peculiar conditions surrounding the admission of California into the Union, the conditions concerning the Treaty of Guadalupe Hidalgo, mineral rights to all Califor-

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The Torrance circulating fluid delivers 75%!

Steam boiler operation including labor, fuel, and water, runs approxi- mately $25.00 per day.

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nia public lands were held by the Federal government. It was as the upshot of this agitation, which finally interested the Navy Department in its quest for Naval Reserves, that the Nye resolution was formulated.

The California Tidelands Association, following the general meeting in the offices of the Oil Producers Agency, immediately organized a delegation to go to Washington to protect the state's interests in the tideland question. The opinion was that this delegation could point out the dangers inherent in the measure, and that by actually being on the ground, could forestall any move to make the resolution a special order of business in the Rules Committee.

Showing that the Nye resolution was of grave consequences to the state as a whole, and by no means confined to the oil industry, this delegation consisted of Carl Sturzenacker, chief of the Division of State Lands; Webb Shadle, attorney in the State Department of Finance (both sent by Governor Merriam); Percy Heckendorf, District Attorney of Santa Barbara county; Geo. Trammel, City Attorney of Long Beach; Rush M. Blodget, executive vice president of Oil Producers Agency, and J. R. (Bill) Pemberton, state oil umpire, the latter two representing the oil industry; and others. Mr. Blodgett was made chairman of the delegation which has been spending its entire time in meetings with members of the California Congressional delegation, and, through them, with members of the Rules Committee, and others, arguing that passage of the Nye resolution would result in untold harm.

The fact that the resolution, even though confined to California, was alarming to other Coastal states has been demonstrated by action of Governor Allred of Texas, who wired his state's Congressional delegation to oppose the resolution on the basis that it appeared to him to be the first step in what might become a settled program of the Federal government, if this first claim were successful, in seizing lands in other states. Indications are that the governor of Louisiana may also adopt the same attitude.

The group sent from California to Washington to oppose passage of the Nye resolution, in addition to its meetings with Congressmen mentioned above, has spent all its spare time in preparing a brief, now in the hands of Representative Clarence F. Lea, chairman of the California Congressional delegation, which points out the various court decisions upholding the state's ownership of her tidelands. This brief, in addition to supplying court decisions for the guidance of California's members in Congress, also outlines the effect the passage of the Nye resolution would have upon general conditions in the state.

The state's stake in the matter becomes apparent when it is noted that California receives approximately $65,000 per month in oil royalties from various tideland fields. All this revenue would cease the minute that the Nye resolution passed, and, with the cessation of this income, the state would be forced to revamp its entire fiscal structure.

First to suffer would be the unemployed on relief, followed by the aged, who now are pensioners of the state, with the ultimate effect extending even to the California school system. Because of the wording of the resolution, competent attorneys assert that tideland revenues are not all that the state would lose. They insist that counties and cities would lose ad valorem tax revenues from improvements at harbors, rentals from warehouse facilities, wharfs, docks, and the like, and that title to lands riparian to navigable rivers would also be clouded.

Settlement of the problem, according to these attorneys, would require court action covering at least ten years, with some opinion being that it would be 25 years before any final settlement could be made.

In the meantime, all revenues would be impounded awaiting court decisions, and all tideland and waterfront development would be at a complete standstill. The effect upon labor, particularaly at a time when unemployment figures are increasing, is not hard to foresee. With the cessation of all development and production operations on California tidelands alone, it has been estimated that several thousand oil field workers would immediately be out of jobs, and with harbor developments also in doubt, many thousands of employees of other industries would also be forced out of employment.

Today, because of the work of the men sent to Washington to fight passage of the Nye resolution, and because its serious nature and widespread ramifications have become apparent under close study, the Nye resolution has been bottled up in the Rules Committee of the House, with opinion being that no action will be taken in this session of Congress. There the matter rests for the present, but it rests there only because of immediate and urgent action by the State of California, by its representatives in Congress, by representatives of various political subdivisions of the state, and by representatives of the oil industry.

The acute crisis of two or three weeks ago has been safely passed, with California still the sole owner of her tidelands. However, constant vigilance must be maintained as some future congress may again take up the Nye resolution or a similar one. The delegation sent to Washington prepared a legal brief which will be used to oppose such resolutions. The brief was left in the hands of Rep. Clarence F. Lea, chairman of the California congressional delegation.

Analyzes Demand

A. H. Hand

A. H. Hand, assistant comptroller of the Union Oil Co. of California, in his discussion recently covering changing demand for California petroleum before the May meeting of the Los Angeles Basin Chapter of the American Petroleum Institution's Division of Production at Long Beach, presented an impressive array of facts and figures concerning the production and inventory status of the California industry. The information given by Mr. Hand is a compelling warning to the industry to take heed of a number of threatening factors in the current picture.

F. F. Hill, director of production for Union Oil Co., has been at Agate Anticline, in Sioux County, Nebraska, inspecting his company's deep test there.

The holiday fishing trip of the geological staff of General Petroleum Corp. was a huge success, but do not ask about the number of fish caught or how Ro Gray liked his air mattress.

STARTING LIFE for A LINER'S "OVERCOAT," the PUMP JACKET

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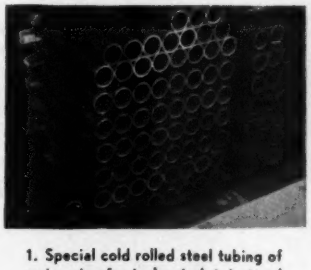
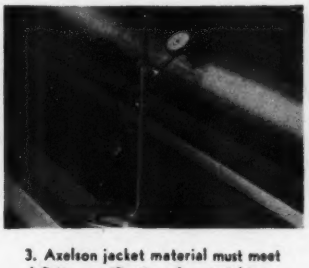
To the average user of deep well plunger pumps the jacket is merely a piece of tubing that holds a series of liners. To Axelson, however, pump jackets are important—so important that they are constructed of cold rolled material—requiring twenty-four manufacturing and inspection operations between the raw stock and finished jackets. ¶ After every manufacturing operation on any Axelson product a check is made by the machine operator to verify accuracy. These inspections are then further checked by regular shop inspectors. ¶ This care and attention to every detail of pump fabrication is one of the reasons why Axelson pumps have a world-wide reputation for long life and economical production.

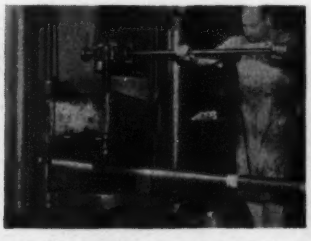


1. Special cold rolled steel tubing of various sizes for Axelson jackets is stored in the tubing warehouse.

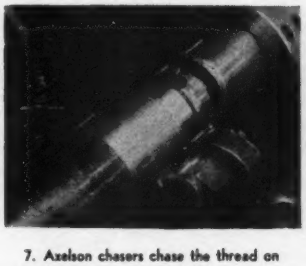


3. Axelson jacket material must meet definite specifications for straightness. This is checked with dial indicators.

2. All tubing is rolled to definite specifications and is carefully inspected immediately upon arrival.

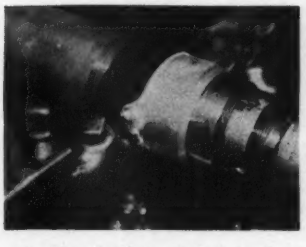


4. Where misalignment is disclosed the tubing is straightened to conform to exact tolerances allowed.



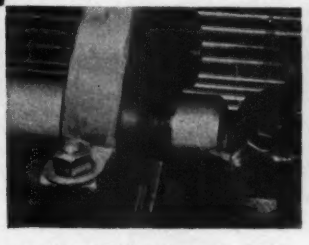
7. Axelson chasers chase the thread on both ends of jacket. Threads are gaged before removing from machine.

12. After painting and stenciling, threaded ends of each jacket are coated with a special rust-preventive solution.

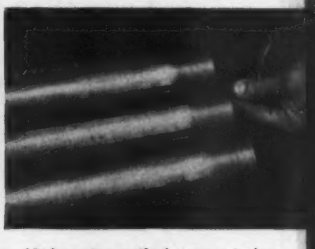


6. After chamfering the jacket ends, they are lathe turned to the proper size preparatory to threading.

11. After all manufacturing and inspection operations, each jacket is painted and stenciled with its part number.

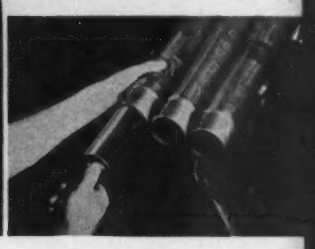


5. After straightness has been verified, jacket material is placed in Axelson lathes where ends are chamfered.



10. Inspectors verify that every Axelson jacket has been previously cut and finished to correct lengths and tolerances.

13. Finished jackets are carefully stored in Axelson stock rooms, for shipment or to be made up as complete pumps.



9. Next, a plug gage is passed through the entire length of each jacket, checking roundness and size of bore.

8. As an added precaution, threads are again checked by an inspector after the lathe operator's check.

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Torrance-Lomita Deep Development

Discussed By Geologist-Engineer

By M. H. SOYSTER,
Consulting Geologist & Engineer

Original development of the Torrance Oil Field began with the completion of Petroleum Development Co.'s Redondo No. 1, later changed to "Del Amo" 1 when the property was taken over by the Chanslor-Canfield Midway Oil Co. This well was completed in the latter part of 1921, and following this completion the Torrance Oil Field was developed to include approximately 3650 acres of proved oil land.

As early as 1925 deep tests had been made in the Lomita area of the Torrance oil field, the center of the present deep zone developmnt, but none of these tests was drilled deep enough. At that time, however, it was generally believed that the field offered poor possibilities for lower zone production. Some of the wells had encountered the schist and other wells were drilled west of a structural cross fault transversing the central portion of the field. This fault is traceable from the intersection of Maple St. and Redondo Blvd. on the north, southwesterly through wells No. 24 and 15 on the Del Amo lease, to near the intersection of 230th St. and Hawthorne Ave. on the south.

Recent development has indicated, but not definitely proven that deeper production does not occur west of this fault except in an isolated area near the intersection of Hawthorne Avenue and Sepulveda Blvd., where small production is obtained between approximately 4250 feet and 4450 feet.

The recent deep zone development which has taken place in the Lomita area of the Torrance oil field was started by the completion of Chanslor-Canfield Midway Oil Co. Torrance No. 34 for an initial production of 120 bbls. daily of 27.1 gravity clean oil from between depths of 4860-6910 feet.

Development has continued since this first well, until at the present time, there are 31 active drilling wells and 40 completed deep zone producers in the field, with a total production of approximately 3500 bbls. daily production.

The structure of the lower zone is similar to that of the upper oil zone, and is a faulted plunging anticline, with the axis located a short distance south of and almost parallel to the upper zone axis. Accumulation of prolific oil bearing sands and sandy shales has occured on the southwest flank of this structure with an increasing productivity of the beds to the south.

At the present stage of development the southern limit of productivity has not been determined, and it will probably extend a short distance southwesterly from and parallel to the upper zone productive limit. Occurance of the lower zone on the north side of the structure does not appear so favorable as indicated by the following test wells:

Superior Oil Co. Torrance 13

Located in Block 102 of Torrance Industrial Tract. Drilled to 4613 feet in 1925. Between the base of the lower zone and the total depth, a total of 3 feet of oil sand was cored. No lower water shut off was made and the well was subsequently abandoned.

Union Oil Co. Frances 2

Located in Section 5, T4S., R14W. Total depth 5404 feet, with casing cemented at 5080 feet and water not shut off. No lower oil zone encountered. Talc schist was cored at 5375 feet.

Shell Oil Co Well Redondo Comm 1

Located northeast of intersection of Redondo-Torrance Road and Valerie Street. Drilled to 4808 feet. Top of schist conglomerate at 4572 feet and top of schist at 4748 feet. No production was found in the schist conglomerate.

On the southeast plunge of the Torrance structure, the lower oil zone was disproved by results obtained in Superior Oil Co. Well No. "Torrance" 63. This well was drilled to 5938 feet. No test was made of the lower zone which showed only spots of oil. Top of schist was encountered at 5864 feet. In the western portion of the field and west of the fault, Chanslor-Canfield Midway Oil Co., in its Redondo No. 2, drilled to 4389 feet. The top of the schist was encountered at 4335 feet and between this depth and 4389 feet white talc schist fragments and bedded schist were cored. No production was encountered below the upper zone.

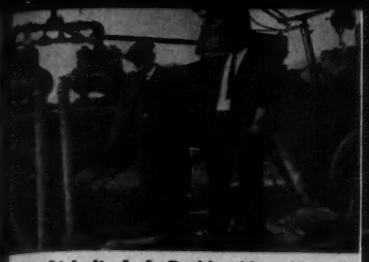
One well in particular which helped to locate the position of the cross fault is Chanslor-Canfield Midway Oil Co. Del Amo No. 23, drilled northwest from the intersection of Sepulveda Blvd. and Madrona Avenue. This well was drilled to 4887 feet and cored bedded schist at 4840 feet. An unsuccessful attempt was made to produce this well below 4750 feet, the only result being hot salt water.

In the Lomita Area, the center of present development, one well, Doyle Petroleum Co. Getty 3 has been recently drilled to a total depth of 5600 feet. Streaks of oil sand were encountered below 6000 feet, and a solid string of casing has been cemented on bottom. The several sands encountered will be tested by gun perforating in stages and testing after each stage. According to information furnished the writer, this well did not encounter the schist, therefore the depth of the productive zone in the Lomite Area will not be determined by the drilling of this well.

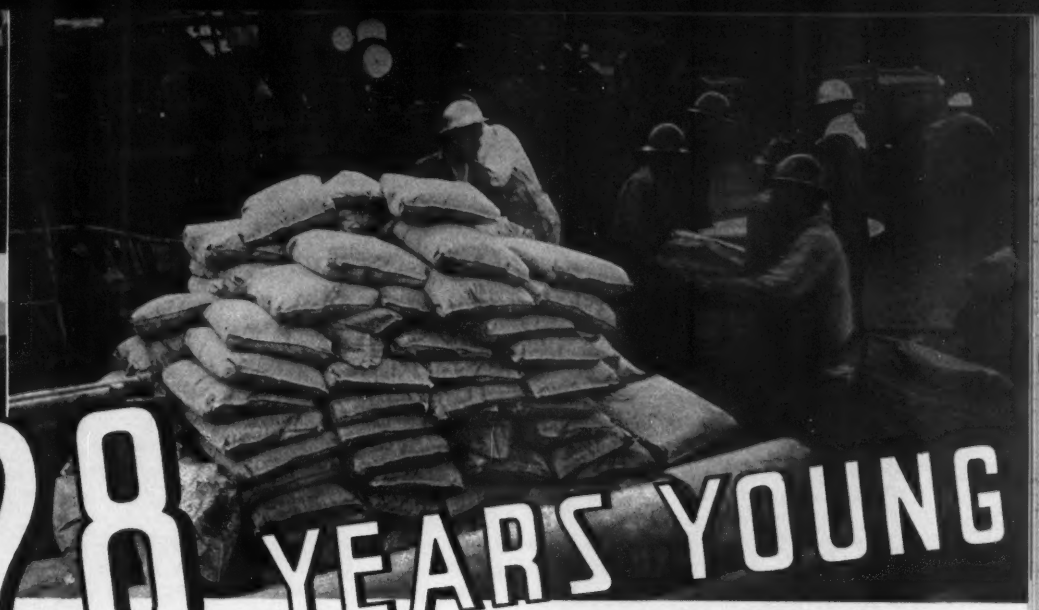
Development of the deep oil zone commonly designated the "34" zone; C. C. M. O. Co.'s Torrance No. 34 being the first well to produce from it, has been accomplished with rotary tools by either redrilling old wells or drilling ne wwells from the surface, A redrilled well would be redrilled through a window in the primary water string at about 3200 feet. After redrilling to the top of the upper oil zone at about 3500 feet a test of water shut off was made for the State Division of Oil and Gas. In case water was shut off, redrilling was continued to the top of the lower zone, and completed in a manner to be described. In case water was not shut off as shown by this test, the operator was required to cement a string of casing and obtain a water shut off above the upper zone, before drilling into the lower oil zone. Wells were completed either by cementing a water string above the lower zone and running a perforated liner or by cementing the oil string at the bottom of the oil zone, and gun perforating the best portion of the oil zone.

These methods required the use of two water strings, and were in use until approval was recently granted by the oil and gas commissioners to Consolidated Petroleum Co. in its Torrance No. 1, to eliminate the water shut off above the upper zone and make a multiple stage cementing job to protect the oil reserves of the upper zone. A detailed description of this job follows:

The primary 10¾-in. water string, cemented above the upper oil zone, was drilled through at 3080 feet. Drilling was continued to 5000 feet, coring from 4800 feet. After running an electrical log, the bottom of the shale underlying the upper oil zone was determined to be at 3845 ft. A full string of 7-in.



At Left—A. A. Perkins himself
At Right—George Cameron

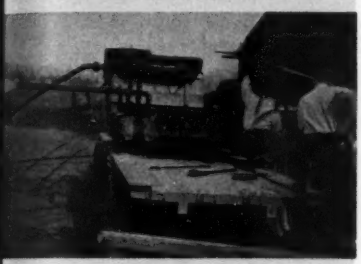


28 YEARS YOUNG

1938...Perkins Cementing Truck and Crew on the job

First Motorized Cementing Unit

Perkins Cementing Outfit—about 1915



Pumps in Action

Old-Time Mixing Pans

Mixing Cement

Displacing Cement

Note Number of Cement Sacks and Horse and Buggy

More than a quarter-century of experience back of every PERKINS cementing job done today

Way back in 1910, A. A. Perkins, inventor of the Perkins Patent Process for cementing oil wells, performed the first cementing job near Maricopa, California. The smaller photographs were taken about that time and show a typical Perkins job of more than a quarter-century ago.

Throughout all these years, Perkins cementing methods and equipment have kept pace with progress in drilling technique. Today—as in 1910—Perkins means the BEST in cementing.

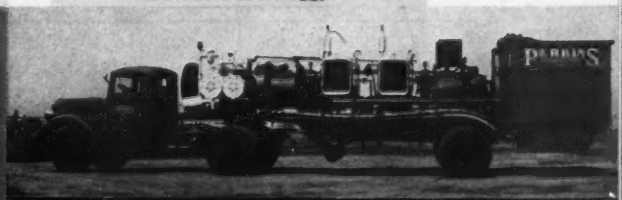
On that next job—call on Perkins Cementing, Inc. You can't afford to cement any well without Perkins experience, methods and equipment!

PERKINS *Cementing, Inc.*

42 PETROLEUM SECURITIES BLDG., LOS ANGELES, CALIFORNIA

FIELD OFFICES: Avenal, Bakersfield, Taft, Norwalk, Ventura, Santa Maria

SINCE 1910 . . . RELIABLE OIL WELL CEMENTING



Latest Type Perkins Combination Truck-Trailer Steam and Gasoline Power Outfit.

casing with a Lane Wells Dual-Seal Cementer set at 3845 feet was run in and cemented at 4914 feet with 175 sacks of cement. A maximum pressure of 475 lb. per sq. in. was obtained on the cement job around the shoe at 4914 feet. The Dual-Seal Cementer is a device which is opened up by means of a special gun, containing 140 grains of a quick exploding powder. The blank shot is fired opposite three phosphor-bronze discs set in previously drilled holes in the 7-in. casing. These discs are tested to 2000 lb. per sq. inch and will withstand a pump pressure of 2800 lb. per sq. inch. The phosphor bronz discs are cupped and blown out of their seats by the force of the explosion and circulation is obtained through them, and out between an outer sleeve ¼-in. in thickness and with a ¼-in. annular space between the sleeve and the casing. The circulation then continues through 6 circulating holes, ¼-in. by ½-in. in size covered by spring steel valves, and back to the surface. The manner in which the device is constructed provides a cement seal to the three holes drilled in the casing and in the case of the Consolidated well was successful in shutting off a high-head water lying below the upper oil zone. Six casing guides were used on the 7-in. casing and it is believed that this method of cementing will afford the maximum protection to the oil sands of the upper zone, and at the same time will reduce casing costs to a minimum. The well tested dry on both upper and lower jobs and at the present time is producing clean oil, in amount comparable to surrounding wells.

The upper portion of the "34" zone contains streaks of gray sand which may contain either gas or water, a circumstance which requires considerable coring to definitely determine the true top of the productive horizon. When casing is not cemented on the bottom and gun perforated, experience has shown it advisable to core the entire interval to be produced before setting the water string, then plug with cement (a Division of Oil & Gas requirement) to the point at which casing is to be set. After receiving a shut off o. k. on the water string, the plug is drilled out, a perforated liner landed on bottom, and the well completed.

The top 100 ft. of the lower zone consists of streaks of shale sandy shale, oil sand and gray sand while the lower portion consists largely of oil sand streaked with shale. The oil produced approximates 27.0° API gravity and the water content varies from less than 1.0% to 20.0% cut. Most wells are produced on the pump and experience very little sanding trouble.

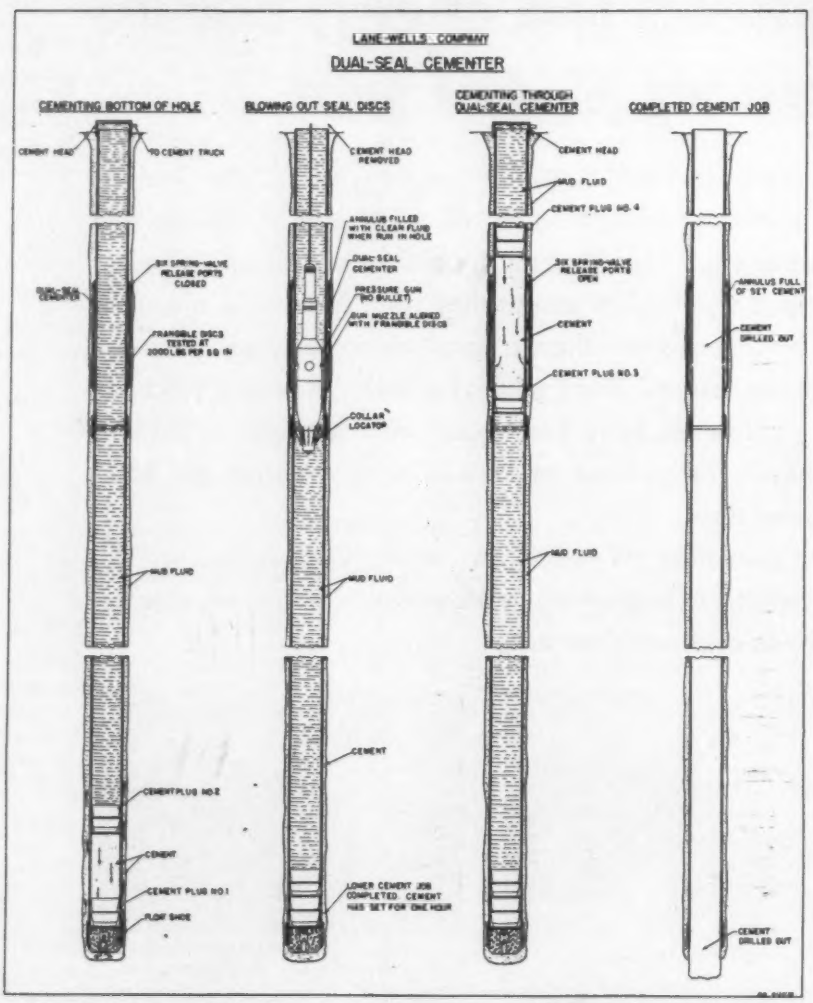


Diagram of the multiple stage cementing process used in Consolidated Pet. Co., Kenny No. 1 at Torrance.

General Petroleum Picnic June 18 at Irvine Park

Hundreds of employees and friends of General Petroleum Corp. from throughout Southern California are busily preparing for their eighth annual picnic to be held in Irvine Park, Orange County, June 18. Program of the day will include games and dancing.

Star features of entertainment will be supplied by W. B. (Red) Pyles' Pegasus Ridays, an aggregation of more than 30 expert horsemen and horsewomen. In this group will be some of the finest horses in the West, all of them bedecked with handsome silver saddles.

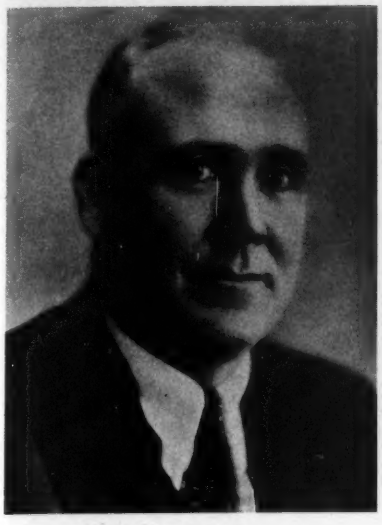
Features of the equestrian exhibitions looked forward to with keeneset anticipation will be a potato race on horseback.

Among those entering blooded horses in the events will be R. A. Sperry, vice president of General Petroleum Corp.; Jack Samuelson, head of the lands department of the corporation; Mrs. James Irvine of the Irvine Ranch; and Mrs. Louise Ward, who has entered her gaited jumping horses.

Included among participants in the saddle horse events will be W. B. Pyles, Mrs. Otto McClure of Santa Ana, George Boyd, John Wagner, C. H. Chesley of Long Beach, Myrl Little of Monrovia, Leo E. Cord of San Fernando, Dan Williams of Buena Park, A. D. Moody of Fullerton, Mr. and Mrs. McBeth of Anaheim, Mrs. Klim of Santa Ana and Gene Thomas of Santa Ana.

It is predicted by A. F. Menges of Yorba Linda, connected with the production department of the Mobilgas-Mobiloil organization, that the picnic will be the biggest, most successful event ever staged by General Petroleum employees. Ambert Baer of the company's accounting department has general charge of the entertainment program.

D. S. Kilgour Elected Accountants' President



D. S. Kilgour

David S. Kilgour, assistant manager of the California Oil and Gas Association, was elected president of the Petroleum Accountants Society of Los Angeles at a board of directors meeting held here recently. Other officers elected for the ensuing year are: L. A. Williford (Macmillan Petroleum Corp.), 1st vice-president; W. A. Russell (Seaboard Oil Co. of Delaware), 2nd vice-president; and D. A. Moore (Wilshire Oil Co.), secretary-treasurer. Mr. Kilgour succeeds R. L. Minckler (General Petroleum Corp. of California), who was president of the society during the past 12 months.

At the society's annual meeting, held recently, Mr. Russell and Mr. Williford were re-elected directors. New directors elected included W. B. Thomson (Kettleman North Dome Association), Irving J. Hancock (Union Oil Co. of California), and J. S. Watson (Shell Oil Co.).

Mr. Kilgour, the new president, has been connected with the California Oil and Gas Association and the California oil industry since 1925. An accountant by profession, both in the public field and associated with private enterprise, he has enjoyed a wide range of experience in business and industry.

A. V. Turner, California representative for Jensen Brothers Manufacturing Co., left Los Angeles June 1 for Omaha and Detroit, where he will buy an automobile to complete an itinerary which includes Billings and Sheldon, Mont., Caspar, Wyo., Denver, Colo., and Chama, N. M. Mr. Turner expects to return to Los Angeles in a month.

McLaren Appointed Shell Vice President

L. G. McLaren

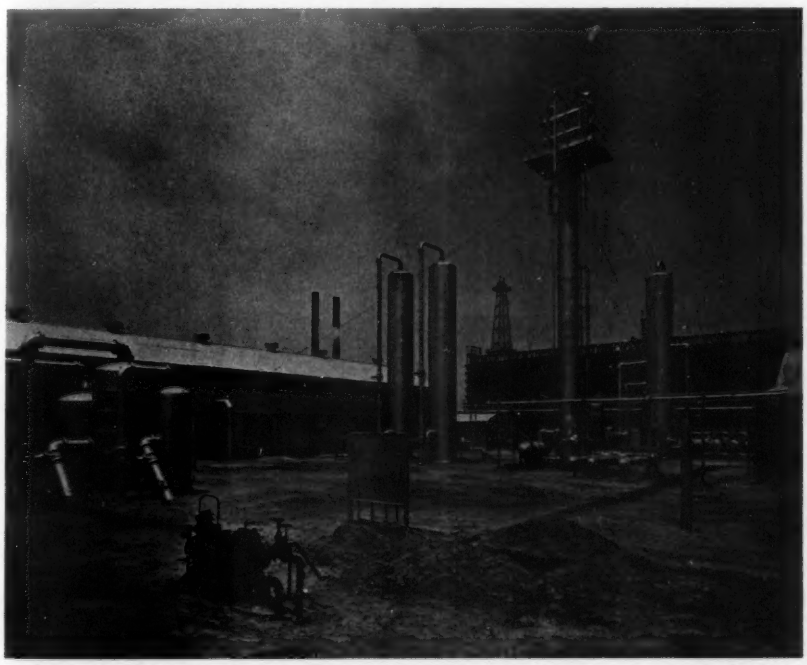
L. G. McLaren, general sales manager of Shell Oil Co., became its vice-president in charge of marketing on June 1. Announcement of Mr. McLaren's appointment and the date upon which he assumed direction of Shell's sales, storage and distribution operations in the West, British Columbia and Hawaiian Islands, was made by S. Belither, president.

Shell's new vice-president comes from the ranks. He entered the company's employ in December 1921 as a service station employee in Seattle Wash. Promotions followed rapidly and Mr. McLaren, now only 45 years of age, successively served the company as salesman, local manager, district manager and division manager in cities of the Northwest and the Hawaiian Islands. From the post of division manager for the Northwest, with headquarters in Seattle, where he began his Shell career, Mr. McLaren was brought to San Francisco as general sales manager in 1935.

Mr. McLaren is married and is the father of three sons. He lives in San Mateo.

Mr. McLaren is expected to visit this division soon, according to Shell's division manager here, R. D. Stetson.

The cost to motorists of registration and other fees in 1937 reached an all-time high of $415,829,000, according to the. American Petroleum Industries Committee.



General view of Ohio Oil Company's absorption plant at El Segundo, Calif. Formerly located at Venice, Calif., this plant was moved to its present site in one of the fastest operations of its kind on record, only 20 working days elapsing between shut-down and resumption of production at the new location. Following re-location of the plant, itself, the compressor station was transferred to the new site in 10 days. Parkhill-Wade of Los Angeles, Calif., were in charge of the operation.

Texas Governor Aids California on Tideland

John B. Elliott, chairman of the executive committe of the Independent Petroleum Association of California, recently received the following telegram from Governor James V. Allred of Texas, regarding the resolution now pending in the House of Representatives in Washington, for the taking of California tidelands by the federal Government:

"Have just wired entire Texas delegation as follows **quote** I trust you can see your way clear to resist passage of amended resolution affecting title to submerged lands in California. Of course it has been amended so as to affect at the present time that state only but contains provision that it shall not operate to disclaim any rights of federal government in other states.

As you know by long and unbroken lines of decisions title to submerged or tidal lands has always been recognized in the states and California succeeded to all the rights of soverignty embraced by any other state upon her admission to the Union. It is true that the resolution as now proposed would not apply to Texas but I do not think we should arm the federal government with a gun which they can use against us just because they say they are aiming it at somebody else.

It is an entering wedge to overturn the decisions of the courts and will be to our public school lands off the coast of Texas.

I do not think we should desert California but should continue to wage a common fight because of the principle used as a stepping stone to claim title involved. **unquote** Regards.

James V. Allred, Governor of Texas."

A local garage advertises "A better finish for your car". What's the matter with the old reliable system of simply running it into a telegraph pole or another car?

Geology Bibliography For California Issued

Anew catalog and index of all publications on mineral resources and geology of California for the years 1931-1936 inclusive is just off the state press, and is on sale for $1.25 (postpaid), which represents the printing cost only. The book (121 pages of small print) has taken years to prepare, and should be invaluable to mining men, geologists, and persons interested in natural sciences, travel, and industry. It is cloth bound, well printed, systematically arranged, and extensively indexed. It is a great time-saver to anyone attempting to look up all publications on a given subject.

In publishing this report, the Division of Mines is serving the public need for finding what is printed on any subject related to minerals and their industry, statistics, mining development, oil and gas fields, geological formations and their history, earthquakes, underground water resources, fossils and their relation to the study of rocks and mineral products.

The Division's Master Bibliography, Bulletin 104, which Bulletin 115 supplements, catalogs the publications from 1930 back to the very beginning of the appearance of literature on exploration in California.

Bulletin 104 sells for $2.25 (postpaid). It is a cloth bound book of 376 pages, and includes an interesting and illustrated historical chapter on "Pioneers in the Geology of California."

Both Bulletin 104 and Bulletin 115 should be in every library, and especially in the private libraries of geologists, engineers, economists, and natural scientists.

California Crude Oil Production

For Two Weeks Ending May 28, 1938

Field	May Daily Quota	Average Daily Production	Excess
San Joaquin Valley			
Belridge—North	15,714	12,413	*3,301
Belridge—South	1,850	1,092	*758
Buena Vista	17,745	17,655	*90
Canal	1,720	1,661	*59
Coalinga—East-West	16,240	9,863	*6,377
Coffee Canyon	3,445	4,101	656
Edison	2,880	2,796	*84
Elk Hills	8,305	10,847	2,542
Fruitvale	7,230	9,428	2,198
Greeley	3,630	3,556	*74
Kern Front	9,293	8,665	*628
Kern River	5,320	2,523	*2,797
Kettleman No. Dome	67,535	70,235	2,800
Lost Hills	4,535	3,562	*973
McKittrick	3,505	3,022	*483
Midway	46,220	48,712	2,492
Mount Poso	16,121	19,208	3,087
Mountain View	9,690	11,656	1,966
Rio Bravo	1,730	3,313	1,583
Round Mountain	10,540	11,379	839
Ten Section	5,930	5,993	63
Other Fields	2,795	3,050	255
TOTAL	261,973	264,830	2,857
Coastal Counties			
Elwood	5,645	6,764	1,119
Rincon	2,970	4,523	1,553
Santa Maria	8,400	5,656	*2,744
Santa Maria Valley	17,260	6,530	*10,730
Santa Paula-Newhall	5,165	4,685	*480
Ventura Avenue	33,950	36,328	2,378
Other Fields	5,970	6,220	250
TOTAL	79,360	70,706	*8,654
Los Angeles Basin			
Alamitos-Seal Beach	8,445	9,055	610
Brea-Olinda	8,665	5,719	*2,946
Coyote—East	2,930	3,233	303
Coyote—West	8,605	8,831	226
Dominguez	23,265	27,347	4,082
El Segundo	9,030	11,022	1,992
Huntington Beach—New	14,495	18,780	4,285
Huntington Beach—Old	13,950	14,765	815
Inglewood	14,830	14,816	*14
Long Beach	47,631	58,731	11,100
Montebello-Extension	7,695	11,052	3,357
Playa del Rey	6,240	6,741	501
Richfield	8,425	8,584	159
Rosecrans-Athens	4,210	6,594	2,384
Santa Fe Springs	32,055	36,271	4,216
Torrance	7,860	8,057	197
Wilmington	62,665	98,307	35,642
Other Fields	2,540	2,523	*17
TOTAL	283,536	350,428	66,892
STATE TOTAL	624,869	685,964	61,095

*—Shortage.

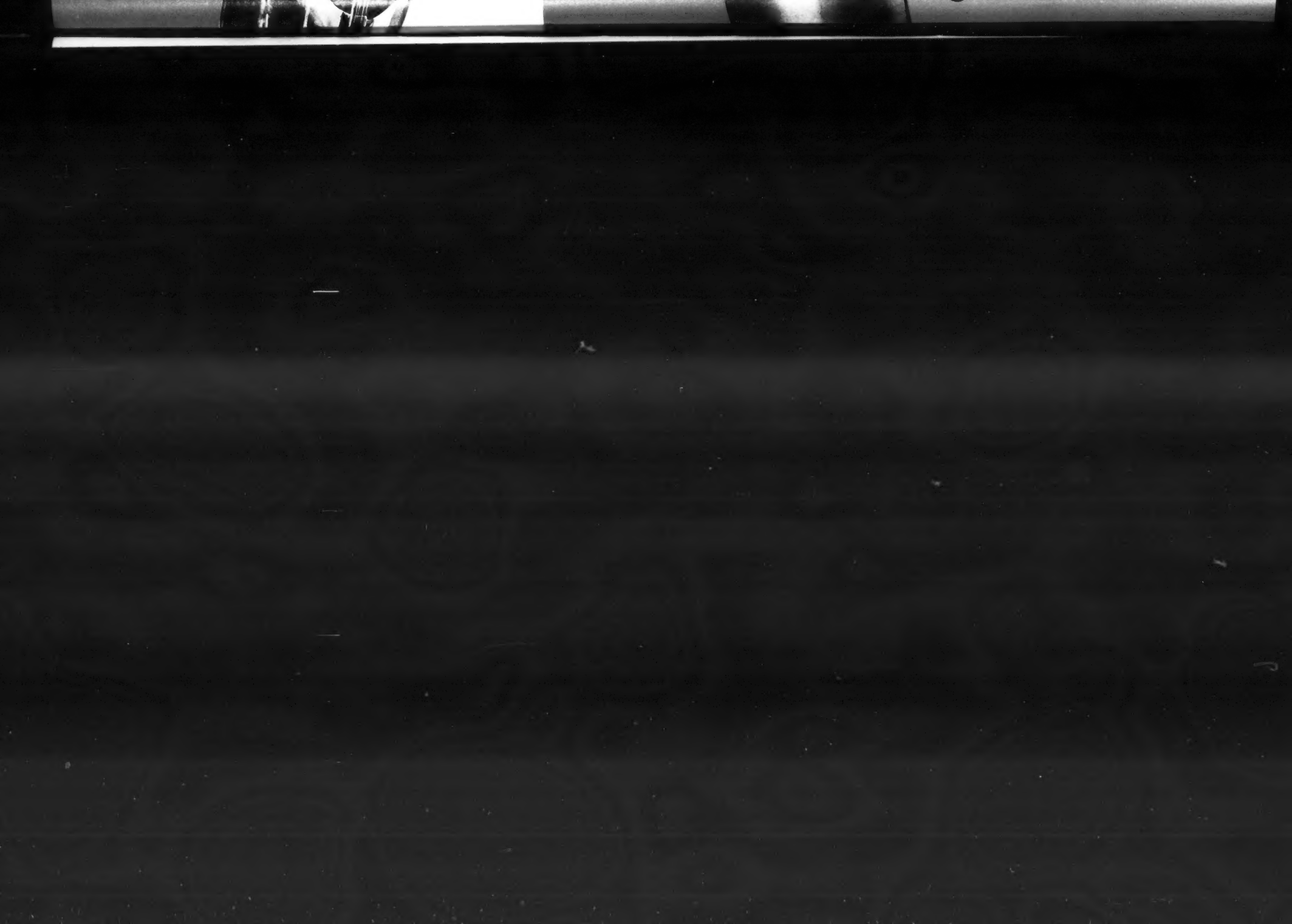
Gasoline Sales Advanced in April

The gasoline tax revenue for last month amounted to $4,632,373.50, an increase of $464,024.94, or 10.02% over the same month of 1937. The tax was assessed against the distribution of 154,412,450 gallons of gasoline.

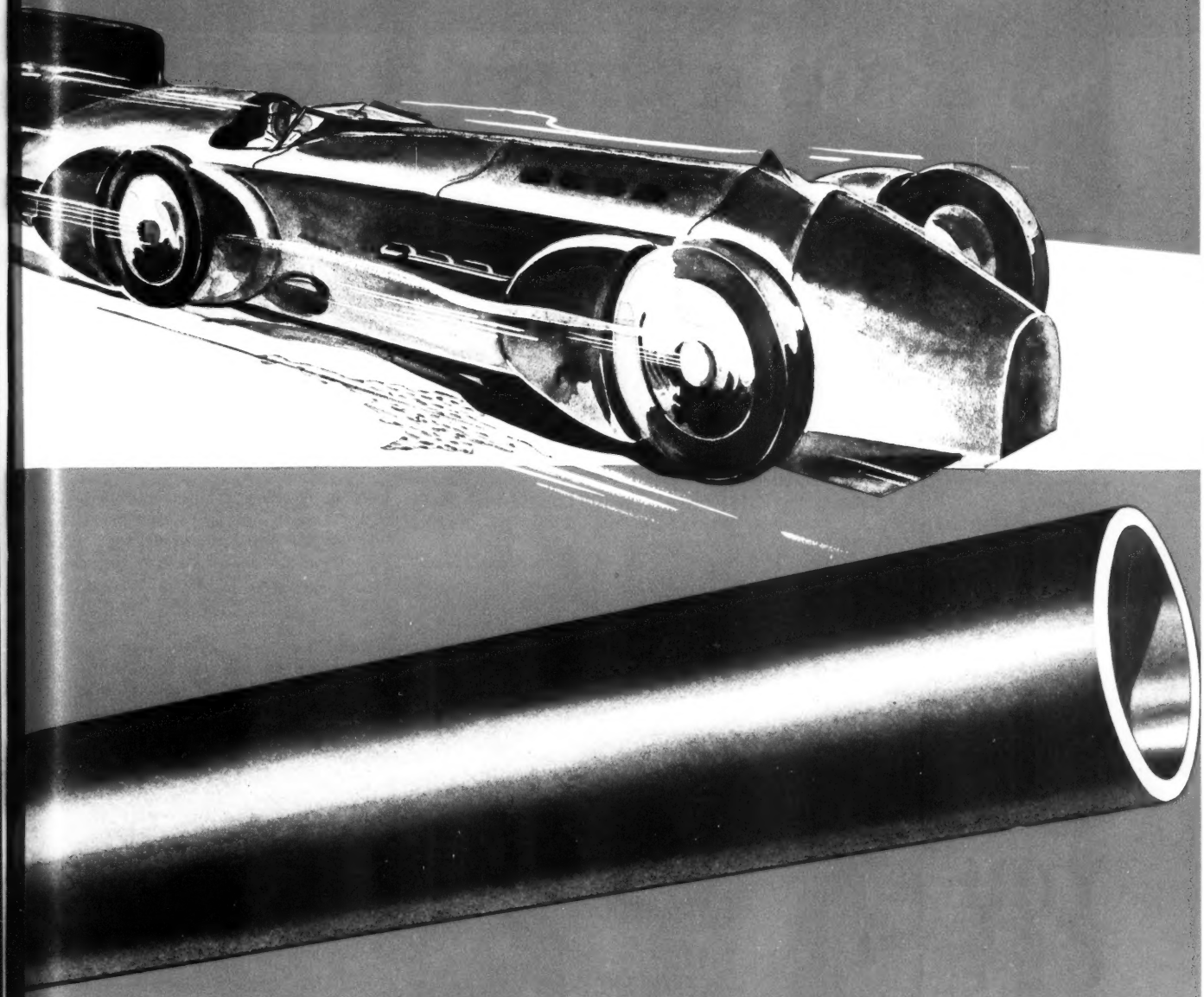
The April sales were the highest reported by the board since August, 1937.

Oil companies reporting sales for more than 300,000 gallons in April were listed by the board, with the explanation that resale of gasoline previously taxed and exempt sales to the federal government, or in interstate or foreign commerce, accounted for differences between total sales and taxable sales. There companies were as follows:

Name	Gallons Actually Sold	Net Taxable Gallonage
Aromalene, Inc.	688,055	675,086
Bachmann Petroleum Corp	1,125,695	1,082,764
Bankline Oil Company	339,982	505
Barnsdall Oil Co. of Calif.	385,980	None
Belridge Oil Company	1,835,273	99,783
Brown, Henry, dba, Operators Oil & Refining	710,477	710,497
California Oil and Refining	343,130	343,130
Caminol Company, Ltd., The	2,247,425	1,896,193
Chanslor-Canfield Midway Oil Co.	408,155	None
Coline Gasoline Corporation	380,191	3,204
Cowan Oil & Refining Co.	814,926	None
Del Rey Oil & Gas Company	798,843	None
Eagle Oil and Rfg. Co., Inc.	743,083	742,885
East West Refining Co.	482,231	482,231
Edington Oil & Rfg. Co., Ltd.	377,504	425,219
El Camino Refining Company	591,079	547,979
Elm Oil Company, Ltd.	414,190	414,190
El Tejon Oil & Rfg. Corp.	617,099	561,123
Envoy Petroleum Company	804,102	804,102
Estado Petroleum Corporation	1,273,945	1,273,635
Exeter Refining Company	1,239,709	1,239,638
Fletcher Oil Company	3,452,022	None
F. R. Long, Inc.	1,294,756	None
General Petroleum Corp. of Cal.	30,361,661	11,256,308
Gilmore-Dabney, Inc	457,438	None
Gilmore Oil Company	6,223,009	80,791
Hancock Oil Co. of Calif.	3,660,513	3,537,284
Harbor Refining Company	723,188	633,413
Honolulu Oil Corp., Ltd.	737,369	9,327
Krieger Oil Company	800,689	800,689
Lomita Gasoline Company	1,709,251	None
Los Nietos Producing & Refining Company, Ltd.	2,884,492	667,515
Macmillan Petroleum Corp.	2,851,391	2,647,248
McCallen Refining Company	1,232,829	1,149,912
Mercury Petroleum Corporation	382,542	382,542
Moffett, J. O. (San Fernando Refining Co.)	331,592	331,569
Meek, Herbert A., dba. Henry H. Cross Co., of Calif.	311,114	None
Mohawk Petroleum Corporation	2,591,184	2,524,297
Norwalk Company, The	2,261,170	1,775,790
O. C. Field Gasoline Corp.	2,295,628	167,333
O. F. Collinge, Inc.	743,024	None
Olsen, G. A., Receiver Sunland Refining Corporation	704,933	None
Olympic Refining Company	1,590,933	1,589,455
Pacific State Oil & Term. Co.	3,452,176	3,452,022
Pacific Western Oil Corp.	654,734	1,042
Petrol Corporation, The	1,994,079	1,351,215
Petrolane, Ltd.	405,427	239,659
Richfield Oil Corporation	15,517,208	14,709,333
Rothschild Oil Company	711,364	711,364
Rio Grande Oil, Inc.	4,126,321	None
R. R. Bush Oil Company	1,056,734	1,041,312
Seaboard Oil Co. of Delaware	1,328,196	1,041,312
Seaside Oil Company	3,741,035	1,530,386
Shell Oil Company	38,029,444	17,778,381
Signal Oil and Gas Cimpany	1,502,772	None
Signal Oil Company	5,770,266	None
Socal Oil & Rfg. Co.	674,300	674,300
Standard Oil Co. of Calif.	66,413,463	29,170,074
St. Helens Pet. Co., Ltd., The	954,989	954,774
Sunset Oil Company	2,141,729	None
Superior Oil Company	2,515,986	58,562
Texas Company, The	8,875,091	7,168,418
Triangle Oil & Rfg. Co., Ltd.	619,022	619,022
Tide Water Asso- Oil Co.	27,274,822	13,850,842
Union Oil Co. of Calif.	19,024,485	13,503,139
Walter Steiner Refining Co.	392,027	392,027
West Coast Refining Company	348,444	None
Western State Gasoline Corp.	3,377,979	145,124
Wilshire Oil Company, Inc	7,854,137	7,627,987



RECORD HOLDERS



STANDARD *Seamless* STILL TUBES

Low Carbon and Alloys

Always apace with the ever increasing service requirements of modern refining operations, "Standard Seamless" Still Tubes are constantly setting up outstanding records for long life and dependable day-in and day-out performance,—the kind that wins and holds the preference of critical tubing buyers *everywhere.*

SPANG CHALFANT, INC.

GENERAL OFFICES: GRANT BLDG., PITTSBURGH, PA.

SALES OFFICES: BOSTON NEW YORK PITTSBURGH ATLANTA CHICAGO ST. LOUIS TULSA HOUSTON DENVER SAN FRANCISCO LOS ANGELES

LAUGH THIS OFF

And **Joe Scanlon** still believes that heredity is a greater influence than environment on the lives of people, in support of which he recites this very convincing case: When the wife of a certain oil man took the baby's bottle away from him the other night, the youngster crept right down into the basement.

Then there was the absent minded rousty at the boarding house who looked at himself in the hairbrush, and promptly went to the barbershop for a shave.

O. C. Fields, the industry's best known ornithologist, now points out that some species of birds can fly in excess of 100 miles an hour, which is almost as fast as the summer vacation.

Oliver, by the way has always been a stout believer in the old adage that half a loaf is better than no vacation.

And perhaps we have already told you that the ideal place to spend a vacation is just inside of your income.

Jim Craig, the Ely Culbertson of the petroleum industry accidently developed an ingenious use for these abominable card tables that have wobbly legs and insist on folding up at the most inopportune moments. Jim left a piece of cheese under one of them the other night and caught a mouse.

"Could I borrow your rug beater?", enquired our next door neighbor, and the wife answered, "No. He doesn't get home till six o'clock."

Out at The Brentwood Golf Club the Petroleum Accounting Society lads were trying to keep things rolling during that dark period between the conclusion of the golf tournament and the beginning of dinner. They were being very successful, too, when **Dud Russell** appeared at the top of the stair and yelled for **Ed Leabow.** "Okay", Ed yelled back, "just a couple of shakes".

Ed is one of the most popular lads in the business. He has only two enemies in the world—Little Joe and Big Dick.

How they ever got around to it we don't know, but a group of oil men in the Los Angeles Athletic Club the other noontime were debating the question as to whether or not a snail has teeth. They were really getting nowhere with the argument until **Chet Gjerde** piped up, "Well snails certainly move as if they were on their way to the dentist's".

And on this subject, **Jim Allen** tells about a Torrance pumper who bit into an apple, and sent it back to his old dentist in Texas, as a pattern for a new set of false teeth.

By the way, **Doc Curtis,** the oil field health guardian, says you can get rid of a coated tongue, by brushing it at the same time as your teeth.

"Where have you been keeping yourself?", **Bill Jenkins** asked his old buddy, who had just arrived back in town. "What makes you thing I've been keeping myself?", was the crushing. retort.

Furniture stores are now discarding period goods, and are carrying a new type of modernistic furniture they call "Emotional" style. This will be swell for oil workers. It should be easy to move.

Harry Lee now interrupts to dissertate on the gambling business. Harry says that lots of people rave against the growing practice of betting on horse races, but think it is all right to buy sweepstakes tickets. Harry insists that the buying of sweepstakes tickets is nothing but gambling, pure and simple. Yeah! Harry, especially simple.

"Where are the showers?", asked the new lad at the oil company boarding house, and the questionee replied, "Gee, I couldn't tell you, I've only been here three months myself".

And when **Oscar Linewalker,** the well known Long Beach pumper took his watch out of hock, **Frank Coyle** remarked, "Well, the guy certainly has some redeeming features".

All of which brings us to the end of another useless day. Remember, when you ask the boss for a day off, it is just as well to wear your safety helmet.

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State Drilling Report

Field	Company	Well	No.	Sec.	Twp.	Range
		NEW WELLS				
Wilmington	Hollywood Oil Co.	Baxter	2	35	4S	13W
	Union Pacific Railroad	U. P.	EU-2 & EU-3	34	4S	13W
	Union Pacific Railroad	U. P.	E-11 & 87	3	5S	13W
	Union Pacific Railroad	U. P.	88 & 89	...	5S	13W
	Sunray Oil Co.	Lakme	2	32	4S	13W
	General Petroleum Corp.	S. P.	12, 14, 15, 16	3	5S	13W
Coyote Hills	Holly Oil Co.	Harris	1	21	3S	9W
	Beth Petroleum Corp.	Beth	2	21	3S	9W
Riverside Co.	Fidelity Realty Corp., Ltd.		1	23	7S	3W
Newhall	Shell Oil Co.	Daugherty	1	9	4N	17W
Torrance	Peters Royalty Corp.	Torrance	2	14	4S	14W
	Lomita Drilling Co.		1	23	4S	14W
El Segundo	Burnoel Petroleum Co.	Elsie	1	12	3S	15W
Long Beach	De Soto Oil Co.	De Soto	1	30	4S	12W
	Hilldon Oil Co.	Amebeo	4	13	4S	13W
Montebello	Jack Herley-Paul Kelley	Burke Comm.	1	2	2S	12W
Santa Maria Valley	Union Oil Co.	Wheat	2	22	10N	34W
	Sunshine Oil Co., Ltd.	Gerard-Wallace	1	27	10N	34W
Monterey Co.	The Texas Co.	F. I. Lewis	1	1	19S	5E
Ventura	Shell Oil Co.	Edison	30	28	3N	23W
	Shell Oil Co.	Taylor	96	28	3N	23W
Ten Section	Shell Oil Co.	KCL-B	58–20	20	30S	26E
	Shell Oil Co.	KCL-B	32–32	32	30S	26E
	Shell Oil Co.	KCL-A	38–29	29	30S	26E
Canfield Ranch	Standard Oil Co.	K.C. 15	2	27	30S	26E
Capitan	General Petroleum Corp.	Erburu	23	5	4N	30W
Santa Barbara Co.	Continental Oil Co.	La Laguna	1	24	8N	31W
Cat Canyon	Barnsdall Oil Co.	Tognazzini	3	9	8N	32W
Kern River	McDonald and Dearin		4	11	28S	27E
	The Hast Oil Co.	Kern	2	34	28S	28E
	Alfred Fuhrman		25	21	28S	28E
Canal	The Ohio Oil Co.	KCL-E	7	14	30S	25E
Fruitvale	Western Gulf Oil Co.	36-KCL-B	36	14	29S	27E
	The Texas Co.	Camp-West-Lowe	1	7	29S	27E
Kern Co.	The Petrol Corp.	Reserve-Petrol	33–5	33	11N	19W
	Tidewater Associated	KCL	1	17	26S	25E
	Shell Oil Co.	KCL-A	83–35	35	26S	25E
Mt. Poso	Vanguard Oil Co.	Baker	30	33	27S	28E
	W. P. W. Petroleum Co.	Packard	3	14	27S	28E
	Shell Oil Co.	Durnal	1 & 2	24	27S	28E
Greeley	Standard Oil Co.	K. C. 11	15	20	29S	26E
Mountain View	Hogan Petroleum Co.	Porter-Day	11	29	30S	29E
Round Mountain	Shamrock Pet. Co.	Shamrock	7	6	28S	29E
	Shell Oil Co.	Olcese-Lilly	3	21	28S	29E
	Eastmont Oil Co.	Olcese	7	16	28S	29E
Sacramento Co.	The Texas Co.	Midland Fee	1	4	3N	3E
Coalinga	Universal Cons. Oil Co.	Leavitt-Hintze	1	12	30S	15E
	Magnet Oil Co.	Fearon	2	18	20S	15E
Rio Bravo	Union Oil Co.	Kerneo	4–34	34	28S	25E
Kettleman North	Standard Oil Co.		61	21	22S	18E
Fresno Co.	James A. Gautier	Gautier	3	12	14S	11E
		DEEPEN OR REDRILL				
Long Beach	The Texas Co.	Baumann	1-B	19	4S	12W
Huntington Beach	Standard Oil Co.	Huntington B	73	4	6S	11W
Santa Fe Springs	General Petroleum Corp.	Santa Fe	227	5	3S	11W
Elwood	Barnsdall Oil Co.		88–5	16	4N	29W
	Barnsdall Oil Co.	Luton-Bell	11	15	4N	29W
Fruitvale	Dixie Lee Oil Co.	Dixie Lee	2	23	29S	27E
	Seahawk Petroleum Co., Ltd.		1-A	23	29S	27E
Torrance	Charleston Oil Co.	Torrance	3	14	4S	14W
	C. C. M. O. Co.	Torrance	73	15	4S	14W
	M. C. Albertson Oil Co.	Torrance	10	14	4S	14W
Wilmington	Bankline Oil Co.	Pac. Term. Comm.	6 & 8	34	4S	13W
	Wilmington Oil & Dev. Co.	Comm.	1	33	4S	13W
Dominguez	Union Oil Co.	Callender	57	33	3S	13W
	Union Oil Co.	Hellman	46	33	3S	13W
Richfield	Union Oil Co.	Chapman	13	29	3S	9W
Ojai	St. Louis Oil Co.	Pirie	4	18	4N	22W
Sunset	Frederick I. Richman	Wellington-Maricopa	4	8	11N	23W
	Ruby Oil Co.		10	2	11N	24W
	Crescent Petroleum Co.		28	1	11N	24W
Midway	Tidewater Assoc. Oil Co.		24	22	32S	23E
Round Mountain	H. A. McDonald	Bell	1	12	28S	28E
Kern River	National Oil Co.	Provident	2	11	28S	27E
Fruitvale	I. J. Banducci	Tiechurst	2	26	29S	27E
Rio Vista Gas	Tracy Drilling Corp.	Hanson	2	36	4N	2E
Coalinga	Traders Oil Corp.		1	24	20S	14E
	Italo Petroleum Corp.	Penn	5	1	20S	14E
		ABANDON				
Rosecrans	Union Oil Co.	Rosecrans	7	19	3S	13W
	Exeter Oil Co., Ltd.	Wanka	1	20	3S	13W
Montebello	A. S. Johnston Drlg. Corp.		32	5	2S	11W
Sunset	Frederick I. Richman	Wellington-Maricopa	3	8	11N	23W
McKittrick	John W. Austin	Hampshire	1	26	30S	22E
Midway	Burkholder Oil Corp.	Orlott	1 & 2	23	32S	23E
Round Mountain	Coast Exploration Co.	Coast	1	6	28S	29E
Santa Fe Springs	Universal Cons. Oil Co.	Blanchard	6	6	3S	11W
	Union Oil Co.	Farwell	4	5	3S	11W
Huntington Beach	The Termo Co.	Fee	1	10	6S	11W
	Westport Oil Co.		5	2	6S	11W
Coyote Hills	Oil Income Corp.	Anderson	1	22	3S	9W
Arroyo Grande	Fred W. Roberts		5	5	32S	13E
Sunset	Standard Oil Co.		203	5	11N	23W
Kern Co.	General Petroleum Corp.	Pauly	1	22	31S	29E
Mt Poso	W. P. W. Petroleum Co.	Packard	3	14	27S	28E
	Shell Oil Co.	Durnal	1	24	27S	28E
Greeley	Standard Oil Co.	Ross	1	20	29S	26E
Tulare Co.	Magnet Oil Co.	Turner Glaze	1	15	22S	26E

Summary	Week Ending May 28	Previous Week	To Date This Year	To Date Last Year
Total New Wells	29	31	511	632
Total Deepened or Redrilled	11	16	351	293
Total Abandoned	12	8	201	192

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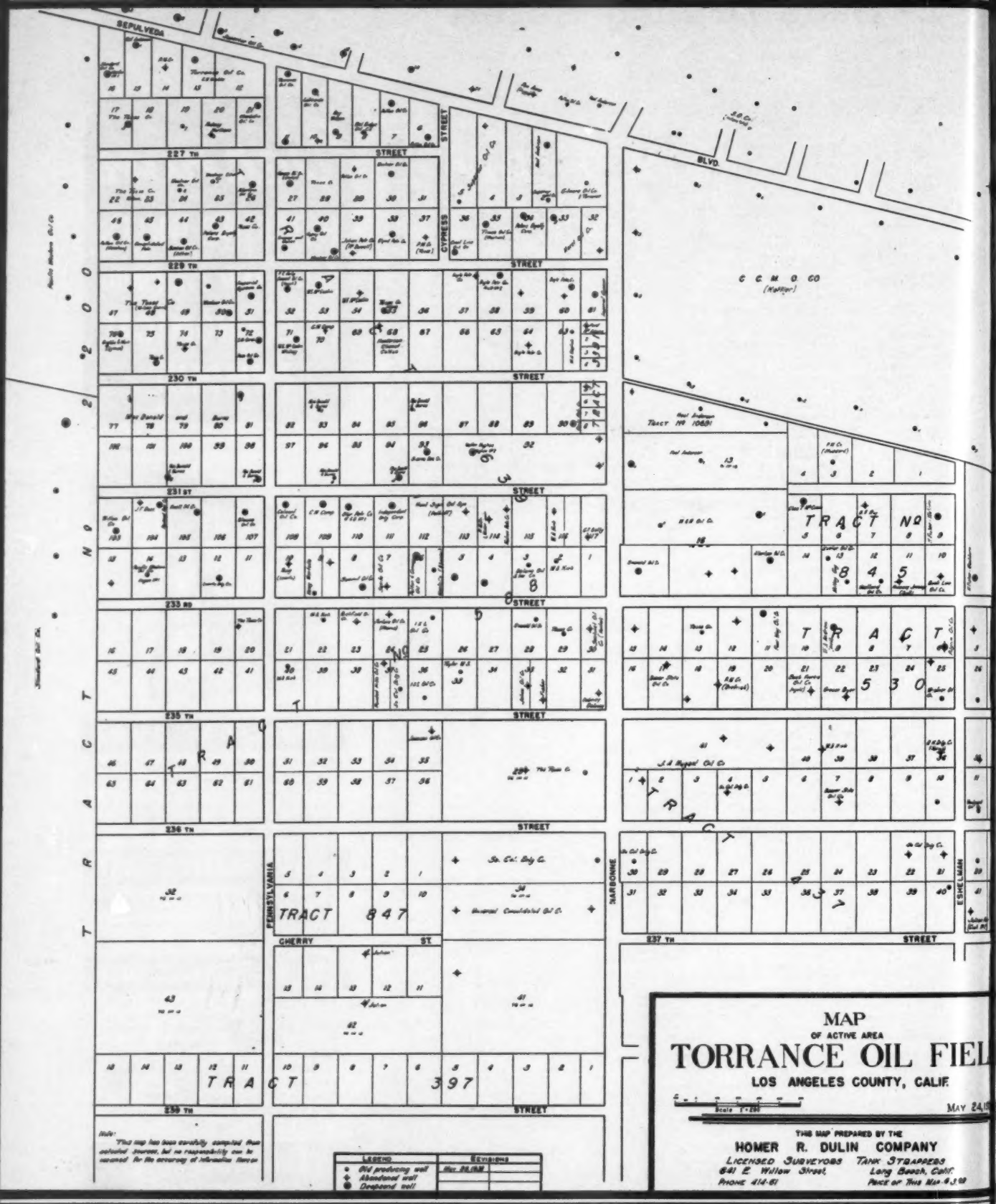


The above map of the active area of the Torrance Field is not reproduced here to scale indicated. The map shows lot and tract numbers and should prove of use to readers of The California Oil World.

Eocene In The San Emigdio-Sunset Area

South of San Joaquin Valley, Kernco

By Gerard Henny

Dr. Gerard Henny

The writer has hesitated a long time before publishing the map with this article. In fact the work on it was already finished in 1927 when the writer published his paper on the great unconformities in the Southern San Joaquin Valley in the Bulletin of the American Association of Petroleum Geologists.

When he started doing extensive plane-table work in the San Joaquin Valley for the Shell Oil Co. in 1923, many of his colleagues were wondering what new geologic facts could be brought out by this method of work. Some doubted if this work would bring in new moneys for the cash-box. The writer can state however that he was continuously encouraged by Dr. E. F. Davis of the Shell Oil Co., who did everything in his power to procure for him all facilities.

In order to appreciate what **was** obtained by plane-table work, the reader must compare the map published here with the ones of the U. S. Geological Survey, for which no plane-table work was done. It took the writer about two years to understand the geology of the San Emigdio Mountains and he had with him a crew of surveyors and rodmen. The U. S. Geological Survey sent, in this area, only single geologists who were given a short time for their study of this vast region. On top of this they had to work on a topographic map which was not accurate.

As far as the practical results of this detail work are concerned, the reader will know more on this subject after having read this article. He will also see that the geology of the San Emigdio Mountains is extremely complicated. In fact, the writer will endeavor to describe some phenomena that hardly ever have been described in geologic literature, and which the writer himself did not think could exist.

As the average man of science is rather a very conservative person, it may be sometimes good judgment to wait more than ten years before publishing any new ideas. By that time, one may find a more receptive audience and one is also quite older, and perhaps does not care anymore a tinker's dam how his ideas are received.

Stratigraphy

The geologic formations referred to in this article are the following:

Alluvium. Recent Valley Fill.

Quaternary Terrace. Between San Emigido and Santiago Creeks are ancient river terraces having an elevation of about 2000 to 2500 ft.

Tulare (Pleistocene). It consists of pebble beds being of a continental origin. These are the youngest beds folded, and are lying unconformably on the:

Etchegoin (Pliocene). This formation consists of shales, clays, sandstones and conglomerates. None of the beds is very thick. The reader will see later that there exists a very great unconformity at the base of the Etchegoin.

Monterey Shale (Middle Miocene). Most of this formation consists of brown Diatomaceous shale, which weather to white color at the surface. Formerly this shale was also called Maricopa Shale. In the described district there is no apparent unconformity with the underlying:

Temblor (Middle Miocene). This formation consists mostly of massive buff colored sandstone beds, containing frequently big round concretions of the size of cannon balls. Between Los Lobos and Santiago Creeks and north of the separate mass of Basement Complex rocks, indicated on the map, the Temblor lies in a syncline on top of a monocline series of Eocene and Oligocene. Here it consists of very white sandstones with concretions and its continuation to the west is plainly visible, where it forms a part of the Temblor series in the hills to the west of Santiago Creek. The next outcrop of the Temblor to the north of this syncline contains more shales, and part of it was mistakenly called Etchegoin by the U. S. Geological Survey geologists. In upper Santiago Canyon the Temblor, or Vaqueros (Lower Miocene) ?, contains dark bituminous shales with some beds of a limey yellow sandstone. In the described area fossils are very scarce in the Temblor and it is possible that in some localities the lower part is of Vaqueros age. The Miocene lies with a very remarkable unconformity on top of the older formations.

San Lorenzo (Oligocene). The San Loreno near the contact with the main mass of Basement Complex rocks near Bush Mountain, in the south of the map, consists of massive yellow sandstane beds. They frequently contain fossils, they are conglomeratic in places and are characterized by reddish stains. In the northern part of the map, between Los Lobos and Santiago Creeks, the San Lorenzo consists mostly of dark bituminous shales. They contain fish scales and have in some localities a strong odor of oil. Between these shales there are sandstone beds which may be good reservoirs for oil. They frequently contain fossils. The shales may be the equivalent of a part of the Kreyenhagen Shale in the Coalinga District.

At a short distance to the west of Bush Mountain, the San Lorenzo contains a large mass of Andesitic agglomerates, as indicated on the map.

Eocene. Most of the Eocene in the described area is of Tejon (Upper Eocene) age. There is however Meganos (Middle Eocene) present near the granite contact between Bush Mountain and San Emigdio Creek. The Eocene consists of sandstones and shales. The sandstones are frequently massive and sometimes contain conglomerates. They are darker than those of the San Lorenzo and they do not show the reddish stains present in the San Lorenzo sandstones. To the north of the separate mass of Basement Complex rocks, the Eocene becomes more shaley and more similar to the San Lorenzo. It is therefore possible that part of this Eocene indicated on the map near San Emigdio Creek, is San Lorenzo.

Cretaceous. This formation does not crop out in the San Emigdio Mountains. It was however reported to be present in the Bardeen (Ramsey) Well in section 10, T10N, R23W at a depth of 4158 ft.

Basement Complex. The Basement Complex is worth a more detailed study

in this district. It consists mostly of Granite. On Bush Mountain and from here toward San Emigdio Creek, Rhyolite is frequently in contact with the sediments. On Bush Mountain a marble lens is present between the Rhyolite and the Granite. The separate mass of Basement Complex rocks in lower Los Lobos Canyon consists of Granite and Gabbros together witht other basic rocks.

Structural Geology

It is not necessary to linger too long in the description of the structural features of the district. The map and the cross-section with this article are self explaining. The cross-section, indicated on the map, goes north-south and is about in the middle between San Emigdio and Santiago Creeks.

The most characteristic feature of this district is the remarkable overlap existing at the base of the Etchegoin and also the one at the base of the Miocene.

A large syncline, plainly visible, exists in the Tulare and Etchegoin formations immediately to the west of San Emigdio Canyon. Farther to the west, in the vicinity of Santiago Creek, this syncline is found to be lying on a monocline series of Temblor, as indicated on the cross section. To the north of this syncline is an anticline in the Etchegoin, covering a monocline series of Monterey Shale. Near Santiago Creek, this anticline in the Etchegoin is overlain unconformably by monocline beds of Tulare dipping about 45 degrees to the north and the northwest.

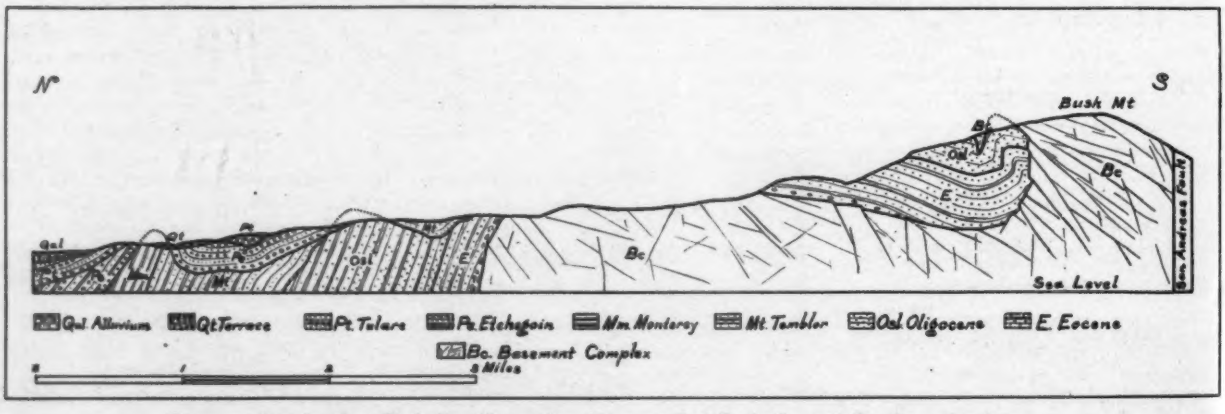
There exists also a remarkable unconformity at the base of the Vaqueros-Temblor. At a short distance to the north of the separate mass of Basement Complex rocks, one can observe a syncline of white Temblor sandstone, already described under the heading of Stratigraphy. This syncline lies on top of a monocline series of Eocene and San Lorenzo dipping steeply to the north. It continues with the same white Temblor sandstones to the west of Santiago Creek, where the writer called it the Cienaga syncline. The anticline in the Temblor to the north of this syncline is eroded off east of Santiago creek, and at its site there is visible only a monocline series of San Lorenzo dipping steeply toward the north. It is however present in the Temblor west of Santiago Creek and is called Cienaga Anticline. On both sides of the Creek the beds of the Temblor in the north flank of this anticline are about vertical.

No apparent unconformity exists between the San Lorenzo and the Eocene. It is evident however that a granite mass must have stuck out above the Eocene sea in the vicinity of Santiago Canyon. The writer will first describe the contact of the sediment on the north flank of the separate mass of Basement Complex rocks. On the east flank of lower Los Lobos Canyon the Eocene is in contact with Gabbros. There is no doubt that this contact is a normal one, because there are angular blocks of Gabbro rock in the Eocene shales near the contact. These blocks undoubtedly fell off a cliff near the original seashore. To the west, the Eocene thins out and near Santiago Creek the San Lorenzo (with fossils) is in direct contact with the granite.

Something similar takes place—with complications—near the main granite mass of Bush Mountain. Near San Emigdio Creek, the Eocene beds lie normally on the granite, dipping to the north. Near Williams Canyon however one can observe fault conditions near the contact. While following this contact to the west, one can observe that the Granite is thrust over the sediment. North of Bush Mountain the map shows a separate sliver of Rhyolite lying on top of the San Lorenzo sandstone. The fact that this sliver has been shoved over from above is proved by its absence in the deep canyon to the west. On the next ridge to the west this sliver appears again and reunites itself with the main granite mass. The San Lorenzo present between the sliver and the main granite mass disappears to the west as in a tunnel under the granite. Taking this structural complication of an overthrust fault in consideration, it is evident, however, that the granite west of Bush Mountain must have stuck above the Eocene sea, the San Lorenzo being here in direct contact with the Granite.

The most remarkable thing happens to the west of Bush Mountain. Here the Temblor begins to appear containing a streak of Basalts. It lies undisturbed on top of the Oligocene, the Granite and the overthrust. There is no question therefore that the overthrust took place before Miocene times. Other faults, occuring before Miocene times, are two north-south cross-faults indicated on the map: One occurs in upper San Emigdio Canyon across the Oligocene and the Eocene of the Devil's Kitchen syncline. The other one is in lower Los Lobos Canyon. To the east of the fault the basement Complex is shoved to the north. The same occurs with a fossil marker bed in the San Lorenzo. The syncline in the Temblor however goes across thte fault undisturbed.

The overthrust fault, mentioned above, is near Bush Mountain at only a short distance to the north of the San Andreas Fault, as the map shows. The contrast between these two faults is very apparent. One cannot conceive that the two faults could have been occasioned by a similar movement. They must have originated by an entirely different mechanism, at work in entirely different periods. It is therefore certain that the San Andreas Fault was formed at a much more recent date than the overthrust fault, which was certainly Post-Oligocene.



Cross-section in San Emigdio Mountains between San Emigdio and Santiago Creeks.

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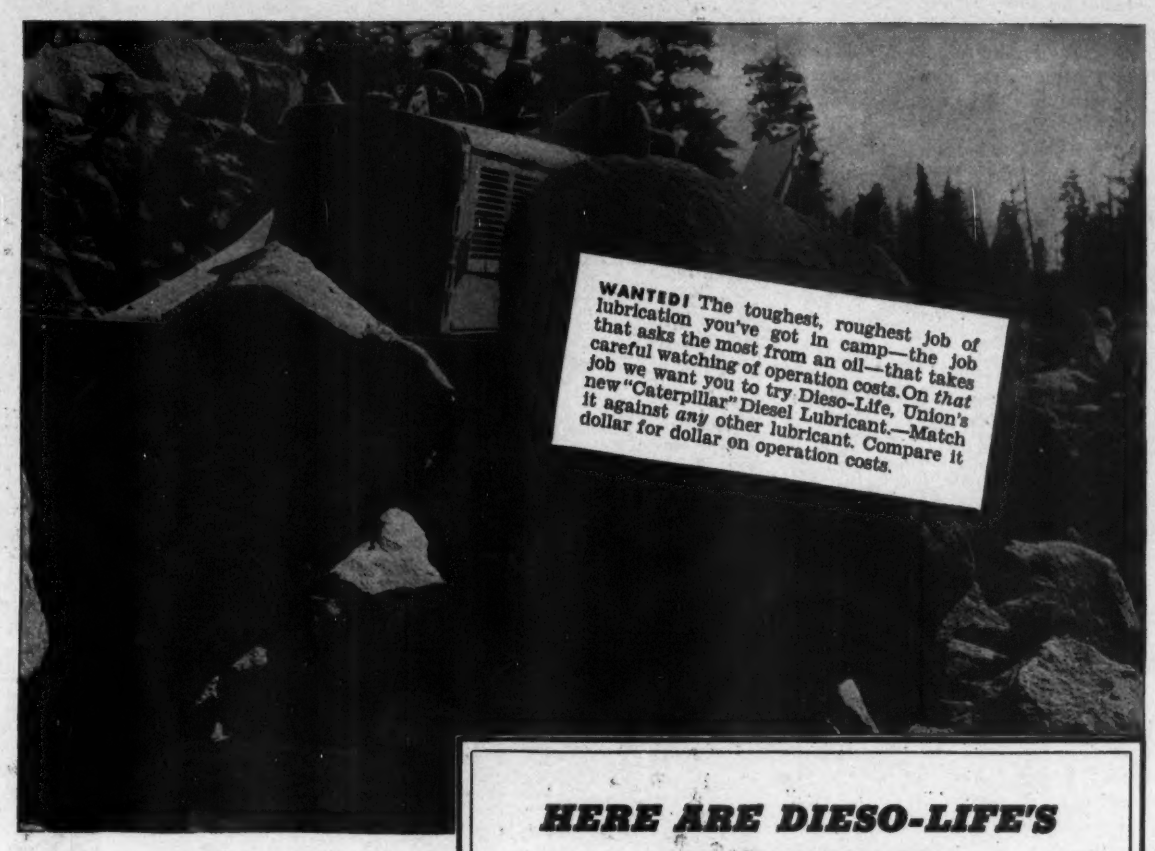
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Conclusions

The unconformities shown in this article make it difficult for the oil man to find the right location for a well drilled with the intention of obtaining Eocene production. The foregoing tends to show that an anticline in the Miocene is not necessarily present below an anticline in the Pliocene. We know this does not take place in the newly discovered fields in the middle of San Joaquin Valley. Again, if we wish to look for an anticline in the Oligocene and Eocene we will not find it probably, within the described area, under an anticline in the Miocene. A well, marked on the map in section 29, T11N, R23W, was drilled right on the top of the Pioneer anticline. It obtained a few barrels of oil in the San Lorenzo at a depth of about 5,000 ft.

The Texas Co. found several good showings in its deep well now drilling south of the Pioneer Anticline in section 33 of the same township.

In Township 10 North, Range 23 West, three wells were drilled claiming good showings of a high gravity oil. The Bardeen (Klipstein) Well in section 18, was, as it is rumored, in the San Lorenzo at 1179 ft. The Bardeen (Ramsey) Well in section 10 seems to have reached the San Lorenzo at a depth of 3005 ft and the Cretaceous at 4158 ft.

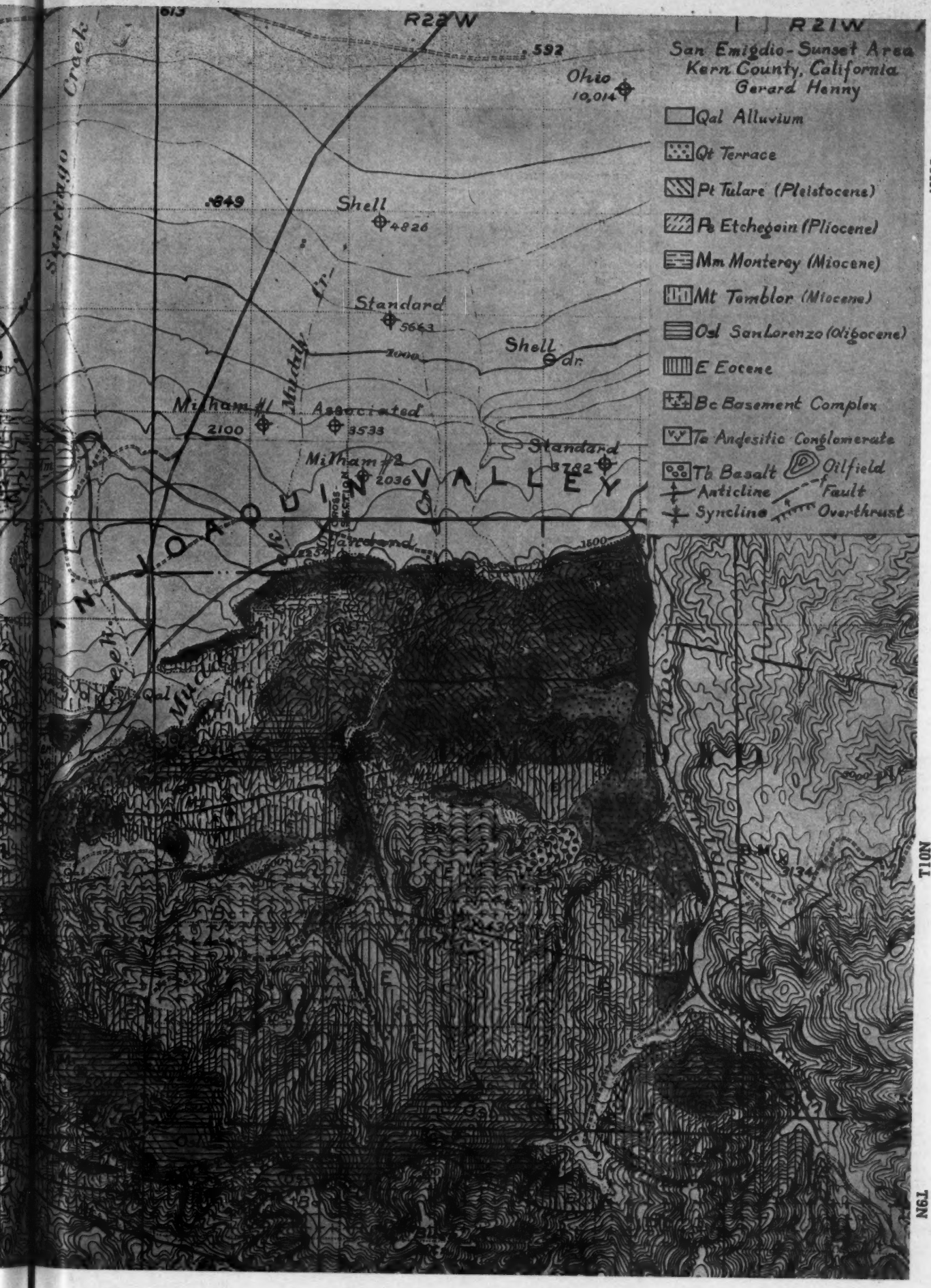
Several wells were drilled by major oil companies in Township 11 North, Range 22 west, north of the foothills, None of them was deep enough to have reached the Eocene. The Shell well drilling in section 26, may obtain some interesting formation regarding the presence of an Eocene anticline in front of the foothills of the San Emigdio Mountains.

Perhaps it will be profitable if one takes in account the great unconformities, mentioned above, when interpreting the results of the seismograph.

Mid-Year Meeting of Petroleum Geologists

The mid-year meeting of The American Association of Petroleum Geologists will be held at El Paso, Texas, Sept. 27-Oct. 2, under the direction of the West Texas Geological Society, Midland Texas. Berte R. Haigh, of University Lands, Midland, is general chairman of arrangements.

At right is the map referred to by Dr. Henny. The author spent two years in preparation of this map indicating the great unconformities in the Southern San Joaquin Valley.


R22W
R21W
T11N
T10N
T9N
San Emigdio - Sunset Area
Kern County, California
Gerard Henny
Qal Alluvium
Qt Terrace
Pt Tulare (Pleistocene)
Pe Etchegoin (Pliocene)
Mm Monterey (Miocene)
Mt Tomblor (Miocene)
Osl San Lorenzo (Oligocene)
E Eocene
Bc Basement Complex
Te Andesitic Conglomerate
Tb Basalt
Oilfield
Anticline
Fault
Syncline
Overthrust
Ohio
10,014
592
Shell
4826
849
Standard
5663
Shell
Mitham #1
2100
Associated
3533
Standard
3782
Mitham #2
2036
VALLEY
Sandrock
1500
Stevens
Sycamore Creek
Middle Dr.
Mud Creek
Qal
Mt
Bc
E
Oil
3134
1000
2000
3000

Tide Water Associated Uses Streamlined Fueling Auxiliary

Streamlined auxiliary equipment for modern streamlined service stations is the latest development of Tide Water Associated Oil Co., Associated Division, construction engineers.

The era of awkward and ugly fueling cart has passed, according to B. G. Brown, Associated construction and maintenance superintendent, being supplanted by the up-to-date, tear-drop design gasoline buggy.

Compact. and mobile, Associated's new fueling auxiliary is designed to take care of peak-hour servicing in busy stations, where volume gallonage sales are made. It is particularly applicable at stations where property space is limited and pump installation expansion is not possible, Brown states.

Coincident with the trend for architecturally streamlined service stations, the new gas buggy has been built on tear-drop lines. It is rubber tired and is easily handled, especially in confined areas. Instead of conventional one gallon pump, it is equipped with a rotary pump capable of continuous flow to fuel the largest capacity tanks. Hand operated, the rate of delivery of gasoline is approximately the same as with computing pumps. The capacity is fifty gallons. Granberg Meters are standard equipment.

In developing this auxiliary gas buggy, Associated called upon its architects to design this serviceable unit along lines similar to the company's newest type stations. It is decorated in the regulation company colors of red, cream and green with chromium plated accessories.

Initial installations of the gasoline buggies have been made in San Francisco and are proving a valuable adjunct in serving the motoring public during rush hours, Brown concludes.

Mohawk Licensed For Dubbs Process

The Mohawk Petroleum Corp. of San Francisco, on June 1, signed a license agreement with Universal Oil Products Co. of Chicago, to cover existing cracking operations in its refinery at Mopeco, near Bakersfield.

This was accomplished after several months of intensive study and investigation of the cracking patent situation by E. V. McKenzie, chief counsel for Mohawk.

Alfred Marsten is president and Frank Long vice-president of the Mohawk Petroleum Corp., which recently purchased the Mohawk Petroleum Co.

Mohawk is the second independent California refiner to sign a Universal license agreement for the use of the Dubbs cracking patents, the first being the Wilshire Oil Co., Inc. of Los Angeles, which in 1936 installed an 8000-barrel per stream day two-coil selective type Dubbs cracking unit, a 2,500,000 cubic feet per day U. O. P. polymerization plant a year later, and now has under construction a 4,000 barrel per stream day Dubbs reforming unit.

Sinclair Contract Goes to Koppers Co.

Koppers Co.'s Western Gas Division at Ft. Wayne, Ind. has just been awarded two construction contracts by the Sinclair Refining Co. for their East Chicago, Ind., refinery.

The contracts are for a riveted and weld-caulked, water sealed gas holder with a capacity of 750,000 cubic feet, a sweating tank, 25 feet in diameter and 18 feet high, three open-top rundown tanks, 26 by 10 by 8 feet, and two hot water tanks 12 feet and 8 feet 6 inches square. The tanks are to be of all welded steel.

The gas holder will be completed in October and the tanks in August.

New Torrance Map By Homer R. Dulin

An exceptionally good map of the active portion of the Torrance oil field has just been placed on the market by the Long Beach surveying and tank strapping firm of Homer R. Dulin. Drawn to a scale of 1 in. = 200 ft., the area included embraces all of the recent deep drilling activity. Aiding greatly in locating wells and properties, all lot and tract numbers are shown.

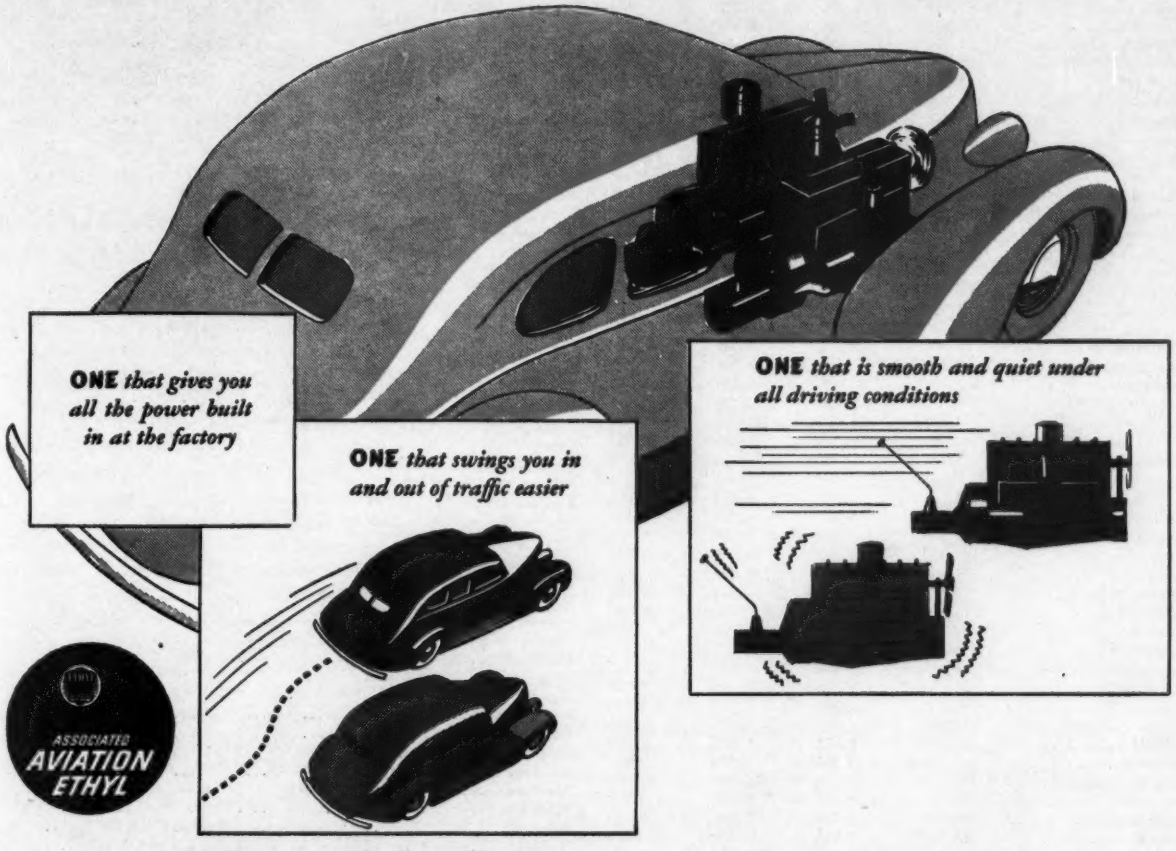
Not a new war machine, but the latest development in auxiliary gasoline fueling service equipment, originated by the Tide Water Associated Oil Company, Associated Division. Designed to care for peak-hour trade in stations of limited space, the new streamlined buggy is very mobile and affords "Johnny-on-the spot" service. No! The "streamlined" young lady is not standard equipment! She is Miss Doris Brownlee, who demonstrated the ease with which the new buggies are handled.

In the big victory celebration and barbecue held at Brea recently, the Long Beach Division of the Shell Oil Company, received a handsome trophy for its excellent six-month record in Industrial Safety. Here are the smiles of the victors, left Workers' Committee Chairman Sam F. Gray of Long Beach, and Production Manager F. R. Schmieder.

Maybe you don't believe it, but there are

TWO MOTORS IN YOUR CAR

Associated Aviation Ethyl gives you **ONE**, *so superior in performance that you'll never drive the other again.*


ONE *that gives you all the power built in at the factory*
ONE *that swings you in and out of traffic easier*
ONE *that is smooth and quiet under all driving conditions*
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PROVE IT! WITH ONE TEST OF ASSOCIATED AVIATION ETHYL

You'll switch over to that *better motor* when you switch over to Associated Aviation Ethyl. You'll find—regardless of what gasoline you have been using—that this true aviation fuel boosts performance immediately, amazingly.

At the slightest command this better, more powerful motor (which you never knew you had) delivers performance you never expected from your car. Prove it yourself—fill up with Associated Aviation Ethyl today.

To be doubly sure you are getting every last bit of power—have your car Motor-Checked. Your car dealer—properly-equipped garages—and your Associated Motor-Check Laboratory can all give you this factory-recommended service. Ask your Smiling Associated Dealer about it.

TIDE WATER ASSOCIATED OIL COMPANY

PRODUCTION :-: DEVELOPMENT

(Figures of Production and Stocks are in barrels of 42 Gals.)

	Total Production April	—DAILY AVERAGE— Apr., 1938	Mar., 1938	Apr., 1937
Group No. 1				
Belridge—North	475,300	15,943	15,143	14,869
Belridge—South	35,239	1,174	1,466	1,733
Canal	55,672	1,856	1,253	.....
Canfield Ranch	4,154	138	160	.....
Coalinga	393,880	13,129	11,424	15,340
Edison	106,114	3,537	3,903	4,490
Elk Hills	333,596	11,120	11,120	10,719
Fruitvale	277,788	9,260	8,970	8,968
Greeley	99,114	3,304	3,294	494
Kern River	400,435	13,348	14,170	15,357
Kettleman Middle Dome	1,791	60	71	168
Kettleman North Dome	2,428,724	80,957	82,264	78,603
Lost Hills	114,898	3,830	3,876	3,880
McKittrick	114,094	3,803	3,766	2,944
Midway-Sunset	1,978,044	65,935	70,728	72,406
Mountain View	366,317	12,211	12,608	21,059
Mount Poso	582,585	19,420	19,789	17,784
Rio Bravo	93,703	3,123	1,002	.....
Round Mountain	501,934	16,731	17,004	12,146
Ten Section	184,635	61,55	5,237	2,410
‡Wasco	11,674	389	.....	.....
Wheeler Ridge	9,407	314	309	342
Group No. 2				
Capitan	92,049	3,068	3,116	2,277
Elwood	198,341	6,611	71,78	9,433
Rincon	114,814	3,827	3,770	2,648
San Miguelito	88,963	2,965	3,008	2,894
Santa Barbara	13,246	442	504	711
Santa Maria	534,164	17,805	17,330	7,260
Summerland	872	29	32	34
Ventura Avenue	1,113,410	37,114	36,941	35,238
Ventura-Newhall	155,094	5,170	4,657	4,952
Watsonville	1,200	40	50	60
Group No. 3				
Brea-Olinda	177,711	5,927	6,082	8,484
Coyote—East	106,816	3,560	3,797	3,408
Coyote—West	269,935	8,998	8,418	8,062
Domingues	802,133	26,737	28,857	23,876
El Segundo	432,553	144,18	15,989	5,546
Huntington Beach	1,025,814	34,193	34,234	37,863
Inglewood	477,744	15,924	16,146	14,197
Lawndale	2,139	71	69	97
Long Beach	1,745,518	58,185	56,847	61,310
Los Angeles-Salt Lake	16,612	553	560	765
Montebello	256,536	8,551	8,112	9,726
Playa Del Rey	202,888	6,763	6,710	9,190
Potrero	12,478	416	294	340
Richfield	290,227	9,674	9,487	8,372
Rosecrans	207,144	6,905	5,958	2,891
Santa Fe Springs	1,118,957	37,298	38,996	44,012
Seal Beach	284,270	9,476	9,506	9,329
Torrance	288,198	9,607	7,941	7,997
Whittier	28,345	945	892	934
Wilmington	3,020,152	100,672	100,695	21,673
Total	21,647,430	721,581	723,913	627,201
March	22,441,293	723,913		
Decrease	793,863	2,332		

‡—Situated approximately 18 miles northwest of Bakersfield.

STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	April 30, 1938	March 31, 1938	April Changes	Dec. 31, 1937 Reclassified
1. Fuel Oil Residuum abd Non-Gasoline-Bearing Crude	79,873,516	76,907,466	+2,966,050	68,529,388
2. Gas Oil and Diesel Oil	9,361,306	9,241,322	+ 119,984	8,648,990
3. Gasoline-Bearing Crude	31,376,515	31,556,951	— 180,436	29,417,842
4. Unblended Nat. Gas	2,680,376	2,540,761	+ 139,615	2,001,204
5. Gasoline (not including distributing and service stations)	14,729,793	15,452,752	— 722,959	13,520,678
6. Naphtha Distillates	1,633,567[1]	1,666,410[1]	— 2,843	1,464,577[1]
7. All Other Stocks	5,275,209[2]	4,994,964	+ 280,245	4,457,568[2]
TOTAL	144,969,282	142,369,626	+2,599,656	128,040,247
[1]Estimated amount of unfinished gasoline contained in item 6	1,438,878	1,474,686		1,248,201
[2]Coke included in item 7	20,329	22,105		22,435

	New Rigs Up	Active Drilling	Producers Completed	Daily Initial Output	Active Producing	ABANDONED WELLS Drillers	Producers
Group No. 1							
Belridge—North	1	7	....	....	60	....	....
Belridge—South	..	....	....	....	85	....	....
Canal	1	2	2	4,964	5	....	....
Canfield Ranch	..	1	....	....	1	....	....
Coalinga	2	5	....	....	848	2	....
Edison	..	1	....	....	88	1	....
Elk Hills	..	....	....	....	173	....	....
Fruitvale	1	1	2	685	166	....	1
Greeley	..	3	1	798	11	2	....
Kern River	4	3	3	236	1,357	....	....
Kettleman Middle Dome	..	....	....	....	3	....	....
Kettleman North Dome	3	17	1	1,890	189	....	1
Lost Hills	..	3	1	24	227	1	....
McKittrick	3	2	....	....	221	....	....
Midway-Sunset	3	3	6	773	2,474	....	5
Mountain View	1	....	....	....	194	....	2
Mount Poso	2	8	2	512	292	4	....
Rio Bravo	4	9	2	3,669	5	....	....
Round Mountain	5	3	2	433	178	1	....
Ten Section	3	4	2	7,140	17	....	....
Wasco	..	....	1	3,000	1	....	....
Wheeler Ridge	..	1	....	....	22	....	....
Group No. 2							
Capitan	..	1	....	....	42	....	....
Elwood	..	....	....	....	74	....	....
Rincon	..	2	1	292	41	....	....
San Miguelito	..	....	....	....	16	....	1
Santa Barbara	..	....	....	....	34	....	....
Santa Maria	13	17	10	7,888	288	1	....
Summerland	..	....	....	....	18	....	....
Ventura Avenue	3	9	4	5,184	281	....	....
Ventura-Newhall	2	7	....	....	554	....	1
Watsonville	..	....	....	....	7	....	....
Group No. 3							
Brea-Olinda	..	1	....	....	346	....	....
Coyote—East	..	1	1	270	85	....	....
Coyote—West	..	2	....	....	45	....	....
Domingues	..	3	1	164	181	....	....
El Segundo	2	1	....	....	60	....	1
Huntington Beach	..	1	1	25	570	....	1
Inglewood	..	....	....	....	207	....	....
Lawndale	..	....	....	....	6	....	....
Long Beach	4	8	2	1,125	1,253	....	2
Los Angeles-Salt Lake	..	....	....	....	113	....	....
Montebello	3	10	1	1,650	219	....	1
Playa Del Rey	..	....	....	....	197	....	2
Potrero	..	1	....	....	10	....	....
Richfield	2	5	1	150	303	....	1
Rosecrans	4	4	2	2,404	92	....	....
Santa Fe Springs	..	....	....	....	650	....	....
Seal Beach	..	....	....	....	110	....	....
Torrance	4	6	6	931	525	....	....
Whittier	..	....	....	....	135	....	....
Wilmington	24	34	31	44,397	462	....	....
Miscellaneous Drilling	12	38	....	....	....	8	....
Group No. 4—Gas Fields							
Buea Vista Lake	..	1	....	....	4	....	....
Buttonwillow	..	....	....	....	19	....	....
Chowchilla	..	....	....	....	....	....	....
Delano	..	....	....	....	1	....	....
Dudley Ridge	..	....	....	....	....	....	....
Goleta	..	....	....	....	....	....	....
McDonald Island	..	....	1	Gas	4	....	....
Rio Vista	1	....	2	Gas	13	....	....
Semi-Tropic	..	....	....	....	....	1	....
Tracy	..	....	....	....	1	....	....
April	107	225	89	88,604	13,583	21	19
March	82	231	82	90,290	13,630	26	19
Decrease (*Increase)	25*	6	7*	1,686	47	5	....

Field Development

Los Angeles Basin

Hold Down Output In Harbor District

Co-operation of operators having Terminal zone production in the Wilmington-Long Beach Harbor field has resulted in stabilizing total field production at approximately 92,000 bbls. a day and has for the time being minimized the threat of a drastic price cut. In the past five months the greater part of the central harbor area has been drilled to the point of satisfying lease requirements and the number of deep zone completions will not be great enough in the future to create a serious hazard. The next phase in the field's development will be the drilling of Ranger zone wells in the outlying sectors and possibly the deepening of old wells in Wilmington to the Ford zone, neither of which offers much possibility of adding greatly to total output.

With seven strings of tools running and five recent completions, Richfield Oil Co. maintains its position of most active operator in the field. Four more wells were finished on the Pacific Dock lease with initial rates ranging from 3340 bbls. in No. 3 to 375 bbls. in No. 18 Nos. 2, 3, and 11 are lower zone producers while No. 18 flows from the Ranger. An initial of 2350 bbls. was obtained in the completion of P & G No. 1, a Terminal well whipstocked under the soap factory. Richfield has adopted a policy of acid treating its harbor wells before swabbing for production. Most interesting drilling well of the company is its Victory No. 1, a northeasterly outpost, now approaching the 3000 ft. level and the top of the Ranger zone. Development of the northeastern townlot area depends to a large extent on results of this well.

Union Pacific Railroad added two Terminal wells to its long list of successful completions. No. 73, located near Cerritos channel, established a potential of 8247 bbls. from both Terminal zones, while No. E-6 on Edison property, proved to be a slow starter, flowing only 500 bbls. from three zones.

Two Long Beach Harbor wells were brought in by General Petroleum. Harbar Comm. No. 4, located at Seaside and Mitchel, was bottomed at 2905 ft. in the Ranger zone and with the liner gravel packed, flowed initially at the rate of 425 bbls. a day, 17.8 gravity clean oil. S. P. No. 3, located near the end of 7th St., was finished in both Terminal zones at 4125 ft., the heavy initial yield being immediately beaned back to 600 bbls. Now in the process of completion are Harbor Comm. No. 12 in the Terminal sands and Blinn No. 3, a north edge Ranger well.

Harbor No. A-4 is Hancock Oil Co.'s only recent completion. With perforations open only in the lower zones fl,ush production was well over 400 bbls., but in line with current practice, was pinched back to the 600 bbl. allowable.

LOS ANGELES BASIN WILDCATS

Los Angeles County

Area	Well	No.	Section	Depth	Status
Bellflower	Clayton, Geo. L. Scott	1	32, 3-12	6897	Idle
Brea	Pressel, Perry, Tull	1	30, 2-9	4560	Idle
Castaic	Royal Land Corp.	1	8, 4-17	705	Drilling
	Shell Oil Co., Dougherty	1	9, 4-17	1705	Drilling
La Mirada	John McKeon & Assoc., Carmenita	1	21, 3-11	950	Drilling
Lomita	D & B Oil Co.	1	25, 4-14	5275	Testing
Monterey Park	Monte Cristo, Garvey	1	27, 1-2	5412	Idle
Mint Canyon	Christien, J. P.	1	7, 4-14		Rig
	Mint Canyon Oil Co.	1	33, 5-14	1860	Idle
Newhall	Barnsdall Oil Co., R.S.F.	3	26, 4-17	6120	Drilling
	National Pet. Corp.	1	27, 4-16	2475	Idle
	Palmluck Oil Co.	1	23, 3-16		Rigging up
Palmdale	Antelope Valley Pet.	1	17, 6-12	50	Idle
Palos Verdes	Gene McLaren	1	27, 4-14	3992	Idle
	Rolling Hills Pet.	1	27, 4-14	4220	Idle
Pico	British Am. O. P. Co.	1	12, 2-12	4568	Idle
	A. S. Johnston, Univ. Cons., Pico	1	5, 2-11	5628	Abandoned
Pico Canyon	Burt, A. G.	1	36, 4-17	2550	Idle
San Fernando	Tidewater Assoc. Porter	1	27, 3-16		Grading
Towsley Canyon	Towsley Canyon Oil Co.	1	8, 3-16	4100	Pumping
W. Long Beach	Pioneer Petrol Corp.	1	26, 4-13	5147	Abandoned
Whittier	Langstaff, Geo. W. Iliff	1	8, 2-11		Rigging up
	San Bernardino				
Chino	So. Counties Pet. & Drlg. Co.	1	26, 2-8		Rig
	Orange County				
Anaheim	Shell Oil Co., Weisel	1	16, 4-10	5220	Drilling
Costa Mesa	A. V. Oil & Gas Co.	1	16, 6-10	1350	Drilling
Kraemer	Congress Oil Co., Kraemer	1	36, 3-9	3017	Testing

Universal Consolidated Oil Co., which has been sueing the city of Long Beach for refusal to issue drilling permits on a disputed portion of its lease, finished Newport No. 5 in the lower Terminal zone at 4050 ft. with an initial yield estimated at upwards of 500 bbls.

In the Wilmington side of the field, Wilmington Oil & Development Co. and Geo. F. Getty, Inc. each have a Ford zone well drilling below 5200 ft. Completed, these wells should be good for about 250 bbls. of 28-30 gravity oil.

North of State St. and east of Banning Blvd., Tide Water Associated Oil Co. is drilling its first well on a large tract leased from the Banning Co.

Royalty Service Corp. is drilling its first well since the sale of the major part of its properties to Sunray Oil. The location is on a narrow strip leased from the Pacific Electric railroad near the Edison plant.

Good Showings Found At 253rd and Vermont

What promises to be a most interesting test is about to be made by the D & B Oil Co. in its semi-wildcat well at the intersection of 253rd St. and Vermont Ave. Nearly 150 ft. of oil bearing sands and shales were cored to bottom at 5275 ft. and casing has been set at 5120 ft. to make a production test. It is not yet fully determined whether or not the horizon is an extension of the Lomita deep zone.

Together, D & B Oil Co. and its affiliate, Dawn Oil Co., control 100 acres in the vicinity of the well, the two companies being entirely independent of any other organization.

Testing Upper Levels In Old Redondo Well

Clifton Oil Co. of San Francisco has entered the Southern California oil picture by acquiring the old Hunter-Devlin (Kavanaugh) well located south of the Redondo extension of the Torrance field. Drilled last fall to 5500 ft., tests were made of showings reported in conglomerate at 5250 ft. and oil sand streaks higher in the hole but none resulted in production.

Immediately on taking over the property, the new owners perforated casing at 4700 ft. and made a swabbing test which resulted in a short flow of water with a little oil. Should it be impossible to shut off the water at this point, the company plans to plug and test higher levels.

Torrance Deep Zone Activity Moves South

Deep zone development in the Torrance field continues at a brisk pace with the trend moving toward the south.

Largest of recent completions is W. E. McCaslin's Hutchins No. 1 at the corner of 230th and Pennsylvania which was brought in flowing 300 bbls. a day from 5042 ft. Consolidated Pet. Co., Kenny No. 1, was finished at 5000 ft. pumping 175 bbls. of clean oil.

Imperial Gypsum & Oil Co. completed Koontsman No. 1 at 5015 ft. flowing close to 300 bbls. of 27 gravity water-free oil, and R. K. Wilson finished Four No. 1 for 200 bbls. cutting 10% from 4986 ft.

Doyle Pet. Co.'s deep test, Getty No. 3, is believed to have encountered new sands as 5¾-in. casing has been cemented on bottom, 5600 ft.

Merco Nordstrom To Larger Quarters

Merco Nordstrom Valve Co. announce movement of their offices to larger and better quarters at 2808 East 12th St., Los Angeles. Their new telephone number is ANgelus 16107.

You'd know the
QUALITY
of a Vase like this

Only a casual examination of such a vase as this would be needed to tell its fine workmanship and quality. Just as, in the same way, you can quickly determine the quality of many products used in the oil fields.

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Potrero Club Well Flows 500 at 4741

Forecasting a possible new boom for the Potrero field, Basin Oil Co. recently completed Country Club No. 1 flowing more than 500 bbls. a day. Drilled to 4741 ft. and with 8⅝-in. casing cemented at 4685 ft., the bottom portion of the hole tested wet and the casing was perforated at 4625 to 4645 ft. From this interval the well was swabbed in flowing 47 gravity clean oil and 500,000 cu. ft. of gas through an 18/64-in. orifice. Pressures were 400 lbs. on the tubing and 1000 lbs. on the casing. After a week the flow increased to 515 bbls. daily.

Responsible for the well's location is Geologist C. G. Willis who apparently is specializing in finding production in areas drilled and all but condemned by others.

Coming as it does on the heels of Tide Water Associated's recompletion of Cypress No. 4 for 400 bbls. of 48 gravity oil, it is probable the Basin's new well will stimulate other operators to enter the area.

Seek Shallow Production In Costa Mesa District

Believing the Costa Mesa area of Orange county may yet be made a commercial source of shallow heavy oil, A. V. Oil Gas Co. at present intends only to test the tar sands which in this location should be encountered between 1800 and 2000 ft. Electrical logging will be employed in conjunction with core analysis to determine the horizons to be included in production tests. Many wells in the past have been drilled in this area, all finding the "tar zone" but none successfully shutting off the water which appeared to be in the same formation. Although one well, Mesa Petroleum Co. No. 1, half a mile to the south, was carried to 7300 ft., the Vaqueros here remains untested and in the opinion of many geologists, offers reasonably good prospects.

Light Shot Causes Athens Well Blowout

A spectacular blow out occurred in the old Athens field when casing was shot at 2500 ft. in the J. M. (Jim) Ackerman well at Figueroa and Laconia Streets. Apparently the 8¼-in. water string was bad at that level as a light shot, intended only to burst a collar of the 6¼-in. oil string, was used. After throwing mud and water high over the crown of the rig for 30 hours, the well sanded up and died.

St. Helen's Monterey 26 Completed Flowing 3500

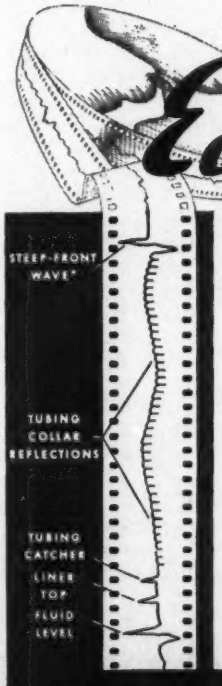
St. Helens Petroleum Co., discoverer and largest developer of the deep zones in the west end of Montebello, also has the best record of completions. Monterey No. 26, bottomed at 5775 ft., was finished with 330 ft. of formation open flowing initially at the rate of 3500 bbls., the cut quickly cleaning up to 1.3%. With the bean reduced to 12/64 in., production is now 402 bbls. of 37 gravity oil and 300,000 cu. ft. of gas. The flow pressure is 740 lbs. and the casing head pressure is 1675 lbs. Monterey No. 25, also a Fifth Zone well, is flowing 1370 bbls. of clean oil through a 1½-in. bean. Two other projects are underway on the Monterey lease; No. 27, which is coring for the oil sand below 5150 ft. and No. 28, which is just spudding in. The company's Eggleston No. 2 is drilling below 2850 ft.

A series of formation tests was made by Standard Oil Co. in Harvey No. 2 which is very important in determining water sources on the south flank. These tests indicated the interval 5630-5710 ft. to be definitely wet while a good flow of oil resulted from 5710-5735 ft. and mud, water and oil were recovered from 5730 ft. to bottom at 5780 ft. Casing is cemented at 5390 ft. and the well may be plugged to 5550 ft., above which point good production seems assured.

Completing Wilcox No. 1 in the Sixth zone at 6248 ft., Union Oil Co. obtained a settled production of 410 bbls. of 36 gravity clean oil flowing through a 14/64 in. bean. Paul Howard No. 1 from the Fifth zone is flowing 350 bbls. a day cutting 45%. Howard & Smith No. 1, now drilling at 5250 ft., will be the next completion for Union.

Brookline Oil Co., Drake Comm. No. 1 at the corner of Beverly and Maple, cored stringers of silty oil sand below 5400 ft. and is preparing to run casing. Herley-Kelley, Burke No. 1 is drilling below 3700 ft., V-8 Oil Co., Estelle No. 1 is below 2000 ft. and F. E. Fairfield, Montebello Wesco, Inc. and West Montebello Oil Co. each is rigging up.

Gasoline taxes collected by the states exceed the combined revenue to the states from real estate and general property taxes, plus individual and corporate income taxes.



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The cost for a single ECHO-METER Fluid Level Determination is only $25.00 per well, plus 8 cents per mile for the truck; additional wells in the same day result in a materially lower unit cost per well usually averaging less than $10.00 for each additional well.

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San Joaquin Valley

Deep Valley Tests Show Little Progress

None of the widely heralded recent discoveries in the San Joaquin valley has yet materialized.

Standard Oil Co. cemented 6⅝-in. casing at 11,396 ft. over the Rio Bravo sand in KCL No. 11-2, deep test of Greeley, but, due to a collapse of the cellar walls, has not been able to test the zone which was cored to 11,520 ft. A mile northwest of No. 11-2, the company is preparing to drill KCL No. 12-5 in sec. 7, 29-26.

Continental Oil Co. KCL No. E-1, located in sec. 17,30-26, was believed to have discovered a new field north of Ten Section and east of Canal, but on formation and swabbing tests has shown nothing but water and a trace of oil. Casing was set at 8190 ft. and the bottom replugged from 8287 to 8242 ft. after locating the water entry at the top of the first plug. Another production test is now underway.

In the Buena Vista gas field, Ohio Oil Co. is drilling ahead at 10,820 ft. in KCL No. A-8, which discovered oil in the Stevens sand at 10,020 ft. The well will be carried down to determine the productivity of the Temblor sands.

Pioneer Unit Plan No. 1, being drilled by the Texas Co. in sec. 33,11-23, southeast of Maricopa, has been fighting mechanical difficulties and has not yet made a satisfactory formation test. Total depth is 8464 ft.

Prepare to Test in Coalinga Gatchell 2

Gatchell No. 2, deep prospect well south of Coalinga, may be tested in the near future according to reports from Fresno to the effect that legal difficulties have been settled out of court. Located in sec. 18,20-36, the well was drilled to 6849 ft. and has casing standing cemented at 6690 ft. Two oil sands are reported to have been cored in the last 150 ft. of hole.

Independents Now Active In Midway-Sunset Area

Many independent companies are now active in the Midway-Sunset area. Surprise Oil Co. is drilling its No. 3 well in sec. 36,32-23, while in sec. 35, adjoining, Signal Oil & Gas Co. has spudded Kendon No. 5, and National Oil Co. is drilling No. 18. To the east, in sec. 31,32-24, Berry & Ewing have No. 2 on the pump for 45 bbls. cutting 10%. American Naphtha Oil Co. is attempting to make a producer of the old Chemeketa well in sec. 15,32-23. Only water was discovered in bailing tests of the sec. 20,11-23 outpost, A.B.S. Corp., Lewis No. 12, which was drilled to 3885 ft. and plugged to 3080 ft. Gibson Oil Co. and Gold Coast Oil Co. have started new wells in secs. 6,11-23 and 19,31-23 respectively.

Shell Abandons Two East of Mount Poso

East of Mount Poso in sec. 24,27-28, Shell Oil Co. recently drilled and abandoned two shallow holes on the Durnal property. No. 1 was carried to 720 ft. while No. 2 was taken 100 ft. deeper, both wells finding the Walker at relatively shallow depths.

SAN JOAQUIN VALLEY WILDCATS

Fresno County

Area	Well	No.	Section	Depth	Status
Coalinga	Conlon, J. M.	1	25, 19-14	100	Idle
	Magnet Oil Co., Fearon	2	18, 20-15		Rigging up
	Petroleum Sec., Gatchell	2	18, 20-16	6849	Standing cmtd
	Univ. Cons. Oil Co., L.-H.	1	12, 20-15		Location
	Wilcox. J. F.	6	11, 20-14	566	Bailing
E. Coalinga	Pure Oil Co., SPL	1	31, 18-17	10861	Redrilling
Clovis	Central Valley Oil Co.	1	1, 12-20	588	Idle
Jacalitos Hills	Jacalitos Pet. Co.	1	14, 21-15	5745	Idle
	Dauphin Dev., Boone	1	30, 21-14	3780	Redrilling
		2	30, 21-14		Grade
Panoche Hills	Panoche Hills Oil Co.	3	12, 14-11	300	Idle

Kern County

Arvin	General Pet. Co., Pauley	1	22, 31-29	500	Abandoned
	Petrex, Inc.	1	32, 31-30	4498	Drilling
	Union Oil Co., Berry	1	15, 31-29	6812	Testing
Belridge	General Pet., St. Helens	1	12, 28-20	8683	Testing shallow zone
Buena Vista	Ohio Oil Co., KCL	A-8	32, 31-26	10810	Drilling
Devils Den	Amerada Pet. Co., Beer	5	22, 16-19	8295	Redrilling
	Gibson Oil Co., Alferitz	3	14, 25-18	512	Drilling
	Little Major Oil Co.	1	36, 25-18	250	Idle
Dominion	Dean, Geo. W.	1	26, 26-28		Rig
Edison	British Cons. Oil Co.	1	11, 30-30	100	Idle
	Johnson, G.W.Brown-Paulette	1	33, 29-30	1095	Drilling
	Stevens, Ray	1	22, 30-30		Rigging up
Fruitvale	Texas Co., C.W.L.	1	7, 29-27	2000	Drilling
Grapevine	Ohio Oil Co., Tejon	D-3	28, 11-18	2275	Abandoned
	Petrol Corp., Reserve	5	33, 11-19	2300	Drilling
	Richfield Oil Corp.	KCL-1	28, 11-20	3200	Drilling
Lerdo	Standard Oil Co.	KCL 18-1	29, 28-26	8380	Drilling
McFarland	Tidewater Assoc. O. Co., Pond	1	17, 26-25		Rig
	Shell Oil Co., KCL	83-35	35, 26-25	6520	Drilling
Mt. Poso	Shell Oil Co., Durnal	1	24, 27-28	749	Drilling
	W. P. W. Pet. Co.	3	14, 27-28	1357	Abandoned
		4	14, 27-28	1263	Abandoned
Poso Creek	Reynolds Oil Co.	1	30, 27-27	2855	Idle
	Harkness & Laws, Hunt	1	28, 27-27		Foundation
Richgrove	Dilamar Oil Corp., Quinn	1	15, 25-27	2956	Testing
		3	15, 25-27		Rig
San Emigdio	Shell Oil Co.	KCL 4-26	26, 11-22	9800	Drilling
Strand	Continental Oil Co.	E-1	17, 30-26	8287	Testing
Temblor Hills	Chico Martinez Oil Co., Holly	1	1, 29-20	1108	Testing
	Par-Mer Oil Co., Kendon	1	36, 29-20	900	Abandoned

Kings County

Dudley Ridge	Falcon Oil & Gas Co.	No. 1	24, 23-20	5436	Drilling
Pyramid Hills	Pyramid Prod. Co., Retherford	1	27, 24-18	3090	Idle
Kettleman	Temblor Oil Co., Bunting	1	25, 23-18	9138	Plug 7815—Idle

Tulare County

	Baringer, Corbridge & Gound	2	29, 24-28	863	Abandoned
Ducor	Nelson & Davidson	1	1, 24-27	375	Drilling
Tipton	Magnet Oil Co., Glaze	1	15, 22-26	3282	Abandoned
Trico	Caminol Co., A. O. G.	3	29, 24-24	7555	Prep. to deepen

Superior Wagner 3 Big Rio Bravo Well

Prospecting the full extent of the Rio Bravo oil sand, Superior Oil Co. Wagner No. 3 topped the zone at 11,255 ft. and cored good oil sand to 11,540 ft. where the sand become increasingly gray to bottom at 11,582 ft. That the sand was not wet is indicated in the production of the well which cuts less than 1.0%. Completed similarly to others in the field, casing was cemented at 11,245, and with the hole "Barefoot" to bottom, swabbed in with production second only to Getty's record 6100-bbl. Ramsey No. 1. The first full day's gauge credited the well with 4838 bbls. of 37.7 gravity clean oil through a 50/64-in. orifice with 1200 lbs. flow pressure and 2000 lbs. casing pressure. With bean reduced to 13/64-in, production was 1687 bbls. per day.

Superior's Anderson No. 1, most northerly well in the field, is now being watched with interest by all operators as it approaches 11,100 ft. Situated on the north flank, this well will furnish much information as to extent and closure of the field. Wagner No. 4 has passed 11,000 ft. and being situated within the proven area, will probable be the company's next completion. The drilling record of the Superior Oil Co. in this field is the most remarkable achievement of its kind in the industry. Since the completion of the discovery well last November, six wells have been finished, five of them by Superior. The first well required 87 days from spudding to flowing, the last but 74. While making unheard of speed records, no serious fishing jobs or mechanical difficulties of any kind have been encountered, and the holes are straight as a string.

General Petroleum Corp. is the next company to break into the producing column. Wagner No. 2 is preparing to drill into oil sand after cementing 7-in. casing over the zone at 11,255 ft. Wagner No. 1 which lost the hole at 10,192 ft. is now sidetracking a fish at 8000 ft. Wagner No. 4 is rigging up.

Union Oil Co. is washing over and pulling piece by piece the collapsed casing from the once nearly completed KCL 34-2. KCL No. 43-3 is drilling at 9710 ft. and No. 34-4 is rigging up.

Geo. F. Getty, Inc. Ramsey No. B-2 is drilling below 5250 ft.

Drilling Below 3500 In Section 29, 30-29

The first new drilling operation in the Mountain View field in many months is Hogan Pet. Co.'s Porter-Day No. 11. Located in sec. 29,30-29, the well is now drilling below 3500 ft.

North Belridge Well Has 1000-bbl. Potential

Texas Co., whose completion of J. D. Martin No. 1 was the opening gun for the extension development at North Belridge, last month completed a third well on the same property. Carried to 8435 ft., Martin No. 3 is flowing from the bottom 190 ft. of hole, initial gauges crediting the well with a 1000-bbl. oil potential and nearly 11,000,000 cu. ft. of gas.

In the same section, 22,27-20, Richfield Oil Co. located the source of the water in Belridge No. 1A and plugged the bottom from 8538 ft. to 8384 ft., reducing the cut from 20% to 5%. With a 1/64-in. orifice the well was last reported as flowing 375 bbls. daily.

A mile and a half to the southeast in sec. 35, Belridge Oil Co.'s No. 17 is now on production from the plugged depth of 8250 ft. flowing 1,500,000 cu. ft. of gas and only 25 bbls. of oil.

Drilling rigs in the field now number six, Belridge Oil having half the number and Richfield, Tide Water Associated and Texas each having one.

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Fruitvale Edge Well Is Marginal Producer

Persistent efforts on the part of California Western Oil Co. have so far failed to develop more than marginal production from KCL No. 1, northern edge well at Fruitvale. With casing cemented at 3420 ft. and bottom plugged from 3520 to 3510 ft., the well pumps approximately 25 bbls. a day of 18 gravity oil cutting 30% water and sand.

Western Gulf Oil Co. is continuing its development of the north side of the field with KCL B-36 which is being readied for completion after topping the Fairhaven sand at 2950 ft.

Deep O'Dea Area Extended To South

Extending the deep O'Dea Zone production to the south, Superior Oil Co. completed Maxwell Comm. No. 8 at 7683 ft. flowing at the initial rate of 350 bbls. a day. This well is of unusual interest in that the upper part of the horizon is apparently cut off by a fault, while the lower section correlates normally with the Barnsdall and Union wells to the north. Instead of topping the zone at 7300 ft., only fractured shale was found, no oil sand being encountered above 7590 ft. Although production is smaller in proportion to the amount of hole open, the oil is better than 30 gravity and clean.

Barnsdall Oil Co. added another good producer with the completion of Trust No. 3 which cored good oil sand from 7235 ft. to 7789 ft. and is now flowing 1260 bbls. of 32 gravity oil and 1,100,000 cu. ft. of gas. The flow is through a 35/64-in. bean with pressures of 425 lbs. on the tubing and 480 lbs. on the casing. Trust No. 4 has been spudded in 200 ft. west of No. 3, both wells being about 800 ft. north of Rosecrans and east of Figueroa.

On another portion of the Trust property, Universal Consolidated Oil Co. is preparing to complete No. 3 from a depth slightly below 7700 ft.

Two Union Oil Co. projects are now active. Rosecrans No. 20 is drilling below 6500 ft. and No. 21 has the derrick finished awaiting equipment.

Encouraged by the Superior Oil Co. completion, Howard Oil Co. has resumed cleaning out the old Union Oil Co. Gordon No. 1, the most southerly project in the field.

More than 55 million barrels of specially made fuel oils are used by the railroads every year.

Ohio Completes Fifth In Canal, Sec. 14, 30-25

Latest completion in the Canal field is Ohio Oil Co.'s KCL E-6, the fifth for that company. Located in sec. 14,30-25, the top of the rich Stevens sand was found at 8087 ft. and the hole cored ahead to 8262 ft. before setting 7-in. casing at 8064 ft. After landing a perforated liner, the well was swabbed in with initial production gauging 2481 bbls. of oil and 1,350,000 cu. ft. of gas. In the same section the company has spudded KCL No. E-7.

Shell Oil Co., which shares the field with Ohio, is preparing to complete KCL A-32 in sec. 32 after coring oil sand at 8200 ft.

Drilling Below 4500 In Canfield Ranch Area

In the Canfield Ranch area, two miles east of Ten Sections, Standard Oil Co. is drilling KCL No. 5-2 in sec. 27,30-26, one location distant from the small discovery well. Now only a little below 4500 ft. in depth, it is yet impossible to correlate with sufficient accuracy to determine the structural trend.

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Union Resumes as Santa Maria Buyer

Reversing its decision to stop all purchases in the Santa Maria Valley field, Union Oil Co. is again buying within the 5000-bbl. per day limit established for the month of May. The reduced price of less than fifty cents a barrel, together with the small amount allowed each operator, leaves very little incentive to drill new wells and the present tendency is toward an absolute minimum of new development.

Because of the absence of kerosene distillate and gas oil fractions in the crude and the high sulfur content and viscosity of the residium, small independent refineries are unable to absorb much of the field's output, the amount being estimated at 1800 bbls. daily.

Most important new field development is the completion of E. H. Moore, Inc. Union Sugar No. 9 as the best well in the western extension area. With 170 ft. of Monterey open to bottom at 4763 ft., the latest offset to Union's Le Roy wells flowed initially at the rate of 1250 bbls. a day before being shut in. Water cut in the 16 gravity oil was less than 1.0%. Well No. 10 will be drilled in the same area.

NORTHERN COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
Colusa	Amerada Pet. Co.,Calif. Lands	1	34, 16-1		Rigging up
Glenn	Ohio Oil Co., Willard	2	18, 20-2	4650	Drilling
Humboldt	The Texas Co., Eureka	2	22, 3-1	7708	Plug 6473-Shut in
Monterey	The Texas Co., Lewis	1	13, 19-5		Grade
San Mateo	Wilshire Oil Co., Cowell	1	20, 6-5	8007	Idle
Solano	Amerada Pet. Co.,S.&S. J.	2	18, 14-3	4397	Completed—Gas
	Richfield Oil Co., Potrero	1	10, 4-1	3250	Drilling
	Texas Co., Midland	1	4, 3-3	925	Drilling
Sutter	Buttes Oil Fields, Ltd.	3	2, 15-1	6954	Shut in

COASTAL COUNTIES WILDCATS

Santa Barbara County

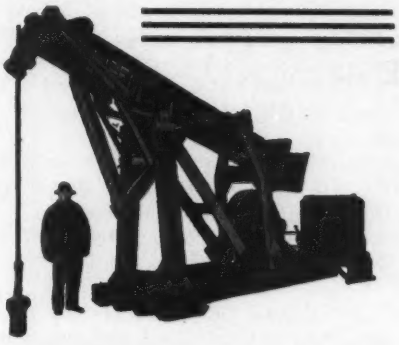
Area	Well	No.	Section	Depth	Status
Carpinteria	Carpinteria Oil Co.	1	32, 4-5	2337	Idle
Cat Canyon	Standard Oil Co., Los Flores	1	27, 9-33	5530	Redrilling
Coal Oil Pt.	South Crude Oil Co.	191-2	24, 4-29	5510	Redrilling
Gaviota	Gaviota Oil Co., Hollister	1	35, 5-33	3215	Testing
	Wilshire Oil Co., Hollister	1	35, 5-33	4175	Drilling
Gato Ridge	Barnsdall Oil Co., Tog.	3	9, 8-32	1023	Drilling
Los Olivos	United Western, Bradley	1	15, 7-30	3250	Drilling
	Continental Oil Co., Laguna	1	24, 8-31	550	Drilling
Lompoc	O'Donnell, J. E.-Helen	1	8, 7-33	3375	Drilling
Orcutt	Bankline Oil Co., Silva	1	7, 9-33	5210	Drilling
	Warren Deuel, Garrett	1	12, 9-34		Rig
Refugio	Tweedy, A. E., Penn.	1	34, 5-31	1700	Idle
Summerland	Gauthier Oil Co.	17-1	22, 4-26	1400	Idle

San Luis Obispo County

Edna	Loma Grande Oil Co., Lewis	1	28, 31-13		Rigging up
Elk Horn	Calif. Prod. Co.	1	6, 10-24	1550	Redrilling
	Western Plains Oil Co.	1	7, 31-21	4010	Redrilling
Paso Robles	Ajax Land & Dev. Co., Moss	1	27, 26-13	475	Idle
	Vanguard Oil Co.	1	14, 27-14	4360	Idle

Ventura County

Moorpark	Darby Oil Co., Cohn	1	7, 2-19		Rigging up
Oxnard	Walter G. Rowe Johnson	1	15, 1-22	4715	Drilling
Ojai	High Mesa Oil Co.	1	16, 4-22	1540	Drilling
	Holly Dev. Co., Macrate	1	27, 4-23		Grade
Red Mountain	Martin, J. W.	3	15, 4-21	1500	Drilling
Sespe	Commander Oil Co.,Temescal	7-F	13, 4-18	215	Idle
	Condor	1	6, 4-19	2195	Cleaning out
	Continental Oil Co., Elkins	1	23, 4-19	4159	Abandoning
	Garmack Oil Co.	1	28, 5-19	565	Idle
	Crosby	1	14, 4-19		Grade
	La Salle & Van Dissen	1	15, 5-19		Grade
	Mercahnts Pet., Cochran	8	1, 4-20	610	Drilling
	Speik Oil Co.	1	33, 5-19	3440	Idle
	Terry, Geo., et al	1	23, 5-20	1340	Idle
	Williamson Oil Co.	1	1, 4-20	420	Cleaning out
Simi	Trucano, Germanina	1	5, 2-17	1007	Idle
South Mt.	The Texas Co., Richardson	5	13, 2-21	5306	Drilling
	Clipper Oil Co., Scheiferle	1	17, 3-20		Rig material
Tar Creek	Section 20 Oil Co.	1	20, 5-19	1611	Drilling
Timber Canyon	Stallings, Senter, Ahlberg	1	24, 4-21	675	Idle



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At the opposite end of the field, R. R. Bush Oil Co. and Hancock Oil Co. completed their development program for the present by swabbing in Bradley Lands No. 2, sec. 26, 10-34, with a potential of 750 bbls. of 14.5 gravity clean oil. The hole was bottomed at 5030 ft. and has 8⅝-in. casing cemented at 4482 ft.

Sec. 27, 10-34, once the "Hot Spot" of the field, is now relatively quiet. Union Oil Co. is completing two wells, McCoy-Cooney No. 1 and Mallory No. 1 after setting water strings at 4760 ft. and 4555 ft. respectively and F. E. Jones is endeavoring to increase the small yield in Wisconsin-Waddell No. 2.

In sec. 26 I. J. Banducci, Selegna Drilling and Producing Co. and Signal Oil and Gas Co. are each completing a well and Wilson Oil Co. has abandoned Beaufoy No. 1 due to mechanical difficulties.

Pacific Western Oil Co. is drilling "in" to complete Carranza No. 2 in sec. 28 after topping the Monterey at 4517 ft. and setting 9-in. casing at 4532 ft. Union's Nicolai No. 1 in the same section is drilling below 4015 ft.

Pumping at the rate of 825 bbls. per day, Bradley Lands No. 3 well was completed by Union Oil Co. in the southern part of the original area of the Santa Maria Valley field. Gravity of the oil was 15.5 degrees. The well was bottomed at 5115 feet, with casing set at 4120 feet.

On the west side of the field, Union's O'Donnell No. 2-2 was being completed on the pump but had not been on production long enough for accurate determination of its output. O'Donnell No. 2-2 was drilled to 5240 feet, with casing set at 4850 feet.

Five Tests Drilling In Santa Barbara Co.

Several interesting wildcat wells are now drilling in Santa Barbara county. Continental Oil Co. has spudded its test of the La Laguna ranch in sec. 24,8-31 and is drilling in shale below 304 ft. In sec. 15,7-30, United Western Oil Co. was last reported drilling at 3250 ft. in the basement schist (Franciscan).

Near Orcutt, Bankline Oil Co., Silva No. 1, is drilling and coring in brown shale below 5225 ft. while seven miles southeast, Douglas-Stratton Oil Co. is making hole in the same formation at 4910 ft.

Standard Oil Co.'s Cat Canyon test, Los Flores Land & Oil No. 1, is still experiencing considerable difficulty in maintaining a straight hole and is now reaming the redrilled hole at 5370 ft.

Hopper Canyon Test Abandoned at 4159

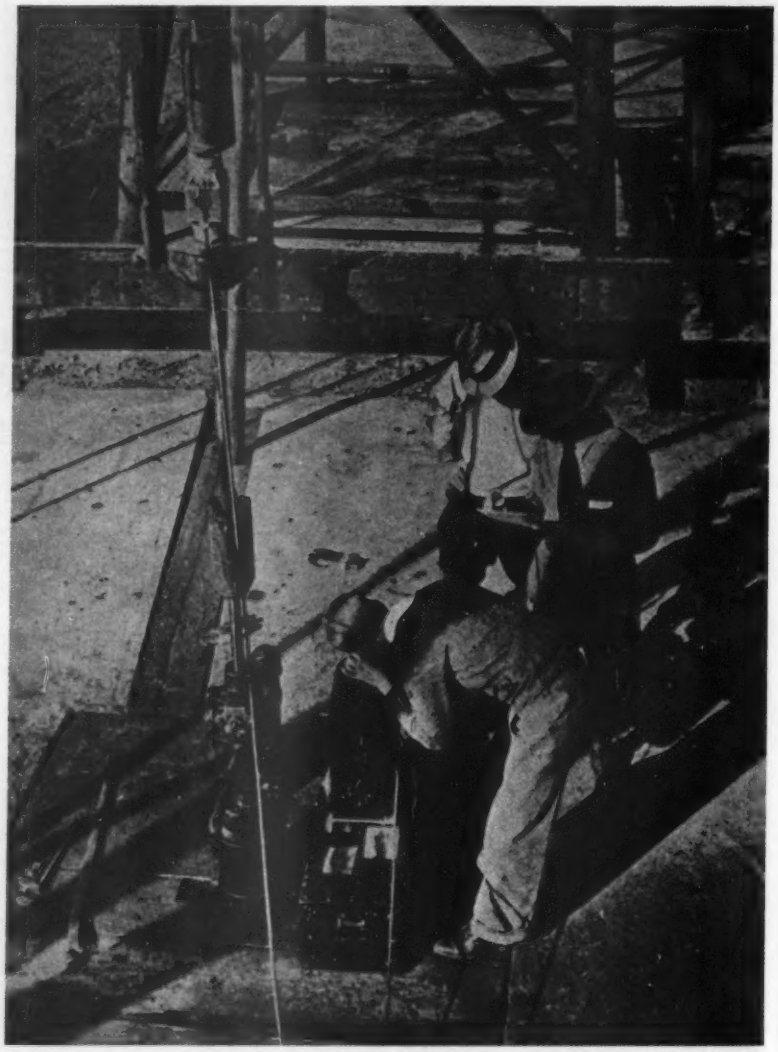
Disappointing indeed were the results obtained in Continental Oil Co.'s Elkins No. 1, started as a deep test of the Hopper Canyon sector of Ventura county. Located in sec. 23,4-19, the well at 4159 ft. apparently had passed through the San Cayetano fault and re-entered pliocene formations. Feeling that further drilling would be fruitless, the company plugged the hole to 3325 ft., cemented 8⅝-in. casing at 2900 ft. and made a 10 day bailing test of showings cored in that interval. During the course of the test only a small amount of oil was recovered, the fluid being mostly muddy water, and the well is now being abandoned.

To Drill Joint Test In Sec. 5, 5-19

Eric Craig, recently resigned resident geologist for the Shell Oil Co. in the San Joaquin valley, and H. A. McDonald, successful Round Mountain operator, have formed a partnership to drill a test well near the center of sec. 5, 5-19, Ventura county.

An oil burning steam locomotive recently made the 2227-mile run from Los Angeles to Chicago at an average speed of 45 miles an hour.

The development of automotive lubrication for locomotives is an outgrowth of the swing toward longer runs.



Cooperative Well Weighing-Compression-Type Electrical Dynamometer. The illustration above is from an A.P.I. paper by Harry H. Power, Texas University, covering current practices in selection of oil field equipment. The paper will appear in an early issue of The California Oil World.

Building Road for Rancho Riva Test

Preliminary road building is now under way for the joint Rancho Riva test by Holly Development Co., Holly Oil Co. and Seaboard Oil Co. in sec. 27,4-23, between Ventura and Ojai. The well, to be known as Macrate No. 1, will be located 2000 ft. north and 4710 ft. west of the southeast corner of Rancho Riva and is to be a test of the Vaqueros horizon which is expected to be topped at 3500 ft.

Actual drilling of the well will be done by Holly Development Co. under the supervision of Art Anderson. Holly Development and Holly Oil each hold 25% interest, while the remaining 50% is held by Seaboard.

Tide Water Lloyd 76 On Gas Lift For 130 Bbls.

Tide Water Associated Oil Co. obtained only 130 bbls. daily production from Lloyd No. 76, completed at the comparatively shallow depth of 4955 ft. at Ventura Avenue. Flowing by gas lift, the oil is clean and tests 28 gravity.

Due to the near cessation of activity at Santa Maria, the Avenue is now the busiest field in the entire coastal district.

New Shallow Test In Section 36, 7-4

San Mateo county, scene of disappointing deep tests in the Half Moon Bay region, is to have a new test for shallow production. Backed by Pomona, Calif., Capital, San Mateo Oil Co. will employ portable rotary equipment to prospect for 1100 ft. production in the area west of Saratoga, the location for the first well having been chosen in sec. 36,7-4, about 12 miles southeast of the deep holes drilled by Shell and Wilshire on the coast. Northwest of the new location many shallow wells have been drilled, some producing small quantities of light oil.

Darby Oil Co., recently organized in Los Angeles, has erected a derrick for a prospect well on the A. B. Cohn ranch, a mile and a half southwest of Moorpark in Ventura county.

J. E. O'Donnel's Helen No. 1, near Lompoc, is drilling below 3450 ft.

Hancock Oil Co. has resumed operations on Scherer-Dickes No. 1, drilled last year to 3361 ft. in sec. 30,12-33, San Luis Obispo county.

Hollister Ranch Outlook Fades in Wilshire Test

Prospects for finding commercial oil or gas on the Hollister ranch in Santa Barbara county appear to be fading as Wilshire Oil Co.'s No. 1 is now down 4200 ft., well into the Sespe, and has been consistently wet on formation tests. Possibilities are not exhausted, however, until the eocene is proved barren.

Gaviota Oil Co. No. 1, which turned to water after flowing gas for several months, deepened to 3215 ft. and cemented a blank liner on bottom. Tests made after gun perforating indicated the well to be still wet.

Making Good Progress On State Permit 191-1 Well

South Crude Oil Co., operating on Coal Oil Point near Elwood, has successfully drilled out of the old Bolsa Chica hole and is now making good progress below 2650 ft. Well financed and under competent engineering direction, this company is taking advantage of the experience of other operators who have drilled the property, State Permit 191-1.

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There will be no exploitation of individual companies or products either in this exhibit or elsewhere in the Exposition.

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Upon request, details as to participation as well as facts regarding the operation and management will be provided.

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California Oil World, 714 W. Olympic Blvd., Los Angeles

Ned Clark

Bruce L. Hicks

J. C. Hoyt

Ned Clark, of Shell Oil Co., Los Angeles, collaborated with Messrs. H. F. Dangberg and Paul L. Kartzke on a paper entitled "Practical Use of Instruments in Studies of Pumping Wells," read in connection with the spring meeting of the Pacific Coast District, American Petroleum Institute's Division of Production, at Los Angeles.

Mr. Clark, employed by Shell Oil Co., in 1927, was graduated by Stanford University in 1931. After spending a year in field geology and scouting work for the Borderland Exploration Co., in San Diego and Newport Beach, he returned to Shell Oil Co., in 1933 and worked in various field departments. In 1934, he was appointed junior field engineer, specializing in production engineering work. Currently, he is assistant production foreman in the Los Angeles Basin division.

Bruce L. Hicks, of California Institute of Technology, Pasadena, collaborated with B. H. Sage and William N. Lacey on a paper entitled "Tentative Equilibrium Constants for Light Hydrocarbons," read at the Production group session on Production Practice and Research, of the Eighth Mid-Year Meeting of the American Petroleum Institute, held in Wichita, Kans., May 23 to 25.

Mr. Hicks received his B.S. in 1936 and his M.S. in 1937 at the California Institute of Technology. He was appointed graduate assistant in physics in 1936, and in 1937 became computer and assistant in correlating data for the Chemical Engineering Laboratories at the California Institute.

J. C. Hoyt, of Industrial Accident Commission, Los Angeles, Calif., spoke on "Safety in the California Petroleum Industry," in connection with the spring meeting of the Pacific Coast District, American Petroleum Institute's Division of Production, held at Los Angeles.

Mr. Hoyt, born in Nebraska in 1882, was graduated in mining by the University of Arizona in 1910 and engaged in professional mining and engineering until 1930. In 1931, he joined the California Industrial Accident Commission and, currently, is petroleum safety engineer and inspector in the Bureau of Industrial Accident Prevention.

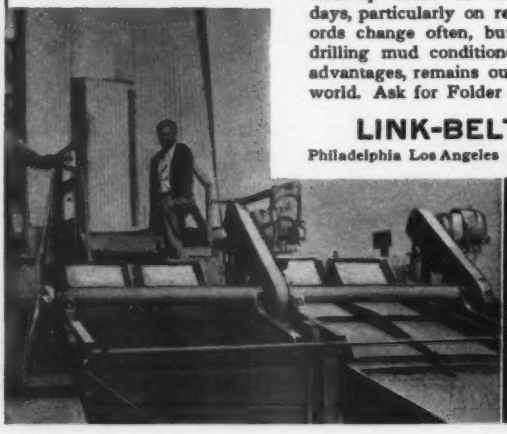
Richfield District Activity Resumed

After a period of inactivity, Richfield again becomes a center of interest with two companies starting work on the north and northwest edges of the field. Alford Development Co. is seeking a northerly extension of production in its new well located 550 ft. south and 550 ft. east of the intersection of Yorba Linda and Linda Vista Streets, while Shell Oil Co. has started a core hole program on the Cuff property to the west.

C. N. G. A.
FROLIC
JUNE 11th

PRODUCING FROM 11,302 ft.

Drilling mud conditioned all the way down by LINK-BELT Vibrating Screen



● Union Oil Company's Kernco 1-34, pictured here as the discovery well of Rio Bravo field, Kern County, Calif., made the world's deepest production at 11,302 ft. The Link-Belt Vibrating Screen hook-up, pictured below with Walt Heathman, engineer, and Driller Hutchins of Union Oil, presents a typical close-up scene on important drilling jobs these days, particularly on record depth jobs. Depth records change often, but the record of this pioneer drilling mud conditioner, with its many exclusive advantages, remains outstanding in oil fields of the world. Ask for Folder No. 1772. 7400

LINK-BELT COMPANY
Philadelphia Los Angeles NewYork Dallas Houston Tulsa

LINK-BELT Vibrating SCREEN

Lufkin Long Stroke Pumping Unit

A great deal of interest has been manfested among production men by the recent installation of the Lufkin Long Stroke Pumping Units in the Santa Fe Springs and Seal Beach oil fields. Long stroke pumping, in the opinion of many oil men is the answer to deep well pumping. Sufficient plunger stroke can be attained without the necessity of "whipping" the well, thus saving breakage of the rods.

The new units have been admired for their apparent strength, size, design, proportion and above all for their simplicity. The number of working parts has been held to an irreducible minimum which will be reflected in long life and low maintenance costs, the manufacturers say.

The six hole cranks will give strokes of 43, 57, 69, 82, 95 and 108 inches. A maximum counterbalance of 19,700 pounds is available. By sliding the Trout Adjustable Counterbalance Weights this can be reduced to zero in as small increments as desired without adding or subtracting any weight, it is claimed. This has been found to be of great convenience in properly counterbalancing the wells.

The units have been operated at speeds as high as 18.3 S.P.M. and there seems to be no reason why they could not be run considerably faster should the operator wish to and the sub-surface equipment is installed to handle such speeds, according to the makers.

The heart of the unit, the reduction gear, is the double reduction, herringbone type. It is rated at 400,000 inch-pounds torque or 81 nominal horsepower.

Lufkin is proud of this equipment and the comments of production men seem to indicate that it will find an excellent reception in the industry.

Bethlehem Announces Seamless Tubular Goods

Bethlehem Steel Co. announces that it has entered the seamless tubing business and is now ready to supply seamless casing, tubing and line pipe, thus rounding out its line of products for the oil industry.

The new seamless products are made under the usual careful supervision and metallurgical inspection and control. Sample strings, both threaded and coupled, and bell and spigot types, have been run in several widely separated fields, under varying conditions, with excellent results, the makers say.

All standard sizes and types of seamless casing, tubing and line pipe up to and including 8⅝ inches outside diameter are available. A mill depot has been opened in Houston, Texas, at 7200 Clinton Drive where a complete stock of seamless products will be maintained, to insure prompt service. Adequate stock is also maintained at the mill at Beaver Falls, Pa.

Paul L. Kartzke

Paul L. Kartzke, of Shell Oil Co., Long Beach, collaborated with Messrs. H. F. Dangberg and Ned Clark on a paper entitled "Practical Use of Instruments in Studies of Pumping Wells," read in connection with the spring meeting of the Pacific Coast District, American Petroleum Institute's Division of Production, Los Angeles, Calif.

Mr. Kartzke enrolled in the California Institute of Technology in 1930 and graduated with the degree Master of Science in 1935. During this period, he carried on a research project and field study for the U. S. Department of Commerce in regard to the damage occurring in the 1933 Long Beach earthquake. Employed by Shell Oil Co., in June, 1935, for the next 18 months he was engaged in various field jobs. Currently, he is production engineer in the Los Angeles Basin division, primarily engaged on pumping problems in the various fields in that vicinity.

The company will continue the manufacture of lap-welded surface casing, from 10¾ in. to 13⅜ in. outside diameter, as well as all sizes of lap-welded line pipe up to and including 16 in. outside diameter. These products will also be stocked at the Houston depot.

All of the above products are available through Bethlehem Steel company's regular sales organization, as well as through the facilities of its subsidiary, Bethlehem Supply Corp., operating in the Mid-Continent and Gulf Coast fields.

New Buda Bulletin

An illustrated new bulletin describing their oil field power units, oil field jacks, earth drills and other equipment, has just been issued by the Buda Co. The Buda Co. is represented in California by Production Equipment Co., with locations in Los Angeles, Long Beach, and Bakersfield.

A. O. Smith Corp. Developing Unique Oil Field Equipment

For the past two years, the A. O. Smith Corp. has been carrying on some rather unusual experiments with operating equipment for the oil fields, the two principal projects consisting of drilling oil wells and pumping oil to the surface of the ground. The principles of operation of this experimental equipment are entirely different from the methods now being used.

The first drilling experiments with this equipment were carried on at the Milwaukee plant in drilling two water wells. These wells were 15" in diameter and approximately 1100' deep. From these experiments, the equipment was developed to a point of efficiency whereby the Smith engineers felt safe in attempting to drill in the oil fields themselves. This well was undertaken in the West Coyote field about 20 miles east of Los Angeles about March 1, and the drilling operations were completed in approximately thirty days. This hole was 4100' deep, 3200' of which was 17½" in diameter and the remaining 900' was 12" in diameter.

The well has been cased with Smith casing and is now ready for production.

The principle of this new equipment differs from the present day drilling methods in that the power is applied to the drill bit at the bottom of the hole, whereas the present method of rotary drilling applies the power at the top of the hole, being transmitted through a long column of pipe to the bit itself.

The advantages of this new principle of drilling oil wells lie in the fact that this equipment is better adapted for the drilling of deeper holes which are now becoming necessary in the production of oil, Smith engineers claim.

It is stated that the experiments carried on so far, while successful, have not proven all that must be known about this method of producing oil, and further experiments are being carried on in the oil fields in drilling deeper holes with this equipment. It is stated that until these deeper holes are completed, no production plans for the manufacture of this equipment will be made.

Other points of advantage claimed that this new type of equipment possesses, aside from being well adapted to deep hole drilling, is that it is of comparatively light weight, drills a very straight hole and when fully developed will reduce drilling time.. A number of A. O. Smith executives and engineers are on the ground conducting these experiments.

The oil pumping equipment being developed also differs from the usual type of pumping machinery in that the entire mechanism is lowered to the bottom of the hole by means of a tube through which the oil is pumped. This mechanism is operated by an electric motor, and the electric current is transmitted to the motor by means of an electrical cable attached to the tubing. These pumps are sometimes placed as deep as five or six thousand feet below the surface of the ground. They must operate continuously over long periods of time without interruption. A number of these pumping units are now operating in California oil wells.

The principal points of advantage claimed for this new equipment is low power and maintenance cost, both of which are very important in production costs of pumping oil.

The pumps are of tubular construction, being 5¼ inches in diameter and approximately 26 feet long. The power for the electrical motor is transmitted to the crude oil pump hydraulically under very heavy pressure.

A number of experimental outfits are now being made at the Milwaukee plant, but it will be some time before the final experiments are completed.

E. V. Watts

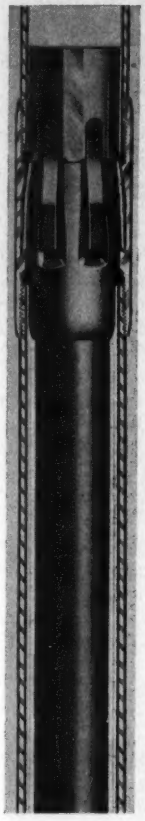
E. V. Watts, of General Petroleum Corp. of California, Los Angeles, collaborated with H. N. Marsh on a paper entitled "Practical Dynamometer Tests," read May 24, at the Production group session on Production Practice and Research of the Eighth Mid-Year Meeting of the American Petroleum Institute, Wichita, Kans.

Mr. Watts received his bachelor's degree in engineering from the California Institute of Technology in 1936, and for the last two years has been employed in the production department of the General Petroleum Corp.

New Yowell Quarters

An announcement of interest to the oil industry is that O. P. "Hap" Yowell has acquired control of the Yowell Service Co. Main offces of the company, formerly in the Petroleum Securities Bldg., Los Angeles and Field Offices formerly at 2110 Bloomfield Avenue, Norwalk have been consolidated in new headquarters at 2759 Norwalk Boulevard, Santa Fe Springs. Branches are located at Avenal, Bakersfield and Ventura. Officers of the Yowell Service Co. are O. P. Yowell, President; S. R. "Pink" Robinson, Secretary; M. D. Spencer, in charge of field service men.

New Type Line Hanger



The Security Engineering Co., Inc. has announced a fundamentally new type of Liner Hanger that has no slips, no complicated mechanism, and nothing to get out of adjustment. It is unusually simple in its setting action and eliminates any danger of hanging the liner too high or too low in the hole. Moreover, when set, it will not move down the hole under the heaviest liner load, the makers claim.

This new Security Liner Hanger consists. essentially of two parts—the Hook Collar and the Liner Hanger itself. The Hook Collar is made up in the casing string so that when the casing is landed this collar will be at the point where the liner is to be supported. The Liner Hanger makes up on top of the liner and has a number of strong spring fingers equally spaced around its circumference. These springs are so designed that, as the liner is lowered through the casing, the ends of the springs are pressed in and cannot contact the casing surface. This prevents any possibility of the fingers catching in the regular couplings. However, when the hanger reaches the specially designed recess of the Hook Collar, the springs expand, catch on the supporting shoulder, and lock the hanger against further downward movement. The entire setting operation is claimed foolproof, as it is only at the correctly formed recess in the supporting collar that the spring fingers expand outwardly to lock the hanger against further downward progress. Withdrawal is equally simple and positive, for a straight pull on the run-in string contracts the springs and completely frees the hanger.

The supporting springs are so mounted in the Liner Hanger Body that each spring end rests against a recessed shoulder. This shoulder carries the entire thrust load of the spring and machine screws, which carry none of the thrust load, serve to hold the springs in place. Due to this engineered construction each individual spring in the Security Liner Hanger will carry a safe load in excess of 20,000 pounds and the various sizes of hangars are designed with a sufficient number of springs to afford an ample safety margin for the heaviest loads, the manufacturers say.

Since the Hook Collar becomes an integral part of the casing string it is designed with an outside diameter no greater than the couplings and an inside diameter no smaller than that of the casing. Nothing projects on either the inside of outside of the string to interfere with running the casing or with any tools that may be subsequently run through the casing. The minimum metal thickness of the Security Hook Collar is the same as that of standard casing couplings and the Hook Collar has a tested strength in excess of A. P. I. standards.. The Hook Collar can be machined and threaded to fit all types of casing, whether plain, flush joint, or upset, and all threads conform to manufacturers' standards. This means that the Security Hook Collar Liner Hanger can be used with equal efficiency on practically any casing string.

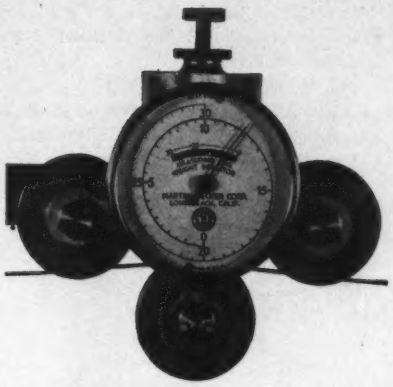
An important feature of the Hook Collar Liner Hanger is that, because of its simple construction requiring a minimum amount of steel, the Liner Hanger can be made of "Securaloy" Drillable Metal in addition to the conventional all steel construction. When made of "Securaloy" the Liner Hanger can be drilled up and circulated out of the hole when occasion demands, and the short spring fingers (the only steel used in the construction) will fall to the bottom of the hole where they can be side-tracked or picked up with a basket bit.

The Security Hook Collar Liner Hanger is available in either plain or packer types as desired. The plain type is for liner support only, while the packer type has a lead seal that packs off inside the casing.

Hydrogen Ion Tester

Of particular interest to the oil industry is the new bulletin on "The Determination of Neutralization Number of Petroleum Products with the Beckman pH Meter." This bulletin is issued by the National Technical Laboratories, 3330 E. Colorado Blvd., Pasadena, California, and outlines a simple straightforward precedure for determining the neutralization number of petroleum products quickly and accurately regardless of the color, viscosity or acidic material present. The bulletin will be sent free to all those interested.

New Weight Indicator



Efficiency and utility have been increased in the new Measuring Line Weight Indicator recently announced by the Martin-Decker Corp.

Mechanical improvements have been incorporated that make this new instrument simpler and stronger. The sensitivity to small weight changes has been increased and the dial travel has been lengthened to 540° (one and a half revolutions) to give maximum reading accuacy and greater capacity.

The new Martin-Decker Measuring Line Weight indicator is a great aid to all measuring line operations, such as locating cement plugs and running instruments and tools on wire liness, the manufacturers say. A new model is also available for torpedo lines and insulated shooting lines. Complete information can be obtained from the Martin-Decker Corp., Long Beach, California.

Lycoming Appoints Medearis Distributor

Paul M. Medearis, president of Medearis Oilwell Supply Co., announces the appointment of his company as exclusive California oil field distributors for Lycoming Manufacturing Co.

Mr. Medearis states that Lycoming has a complete line of engines, especially designed for oil well pumping purposes.

Robert Manson, until recently factory representative for Lycoming in California, has joined the Medearis Oilwell Supply Co.'s organization and will make his headquarters in Bakersfield.

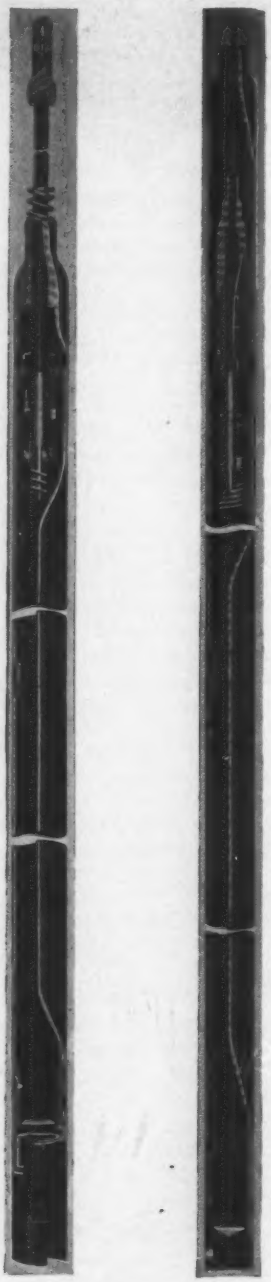
Stocks of engines and parts will be maintained at the headquarters of Medearis Oilwell Supply Co., 8638 Otis St., South Gate, Calif., and also at the Valley Warehouse at Bakersfield.

Complete service will also be available in all of the California fields.

Cavins Sand Pump

The Cavins Sand Pumps are made in two models—the Mid-Continent type and the California type.

The Mid-Continent type is an all-purpose clean-out tool for use in production work or in connection with standard tools where quick change-over features, and ability to stand abuse while delivering the goods, are desired.



Manufactured in O.D.'s of 3⅛, 3¾, 4¼ and 5½ inches. The standard length is 35 feet over all in two sections, but it can be made longer or shorter according to specifications. Made of seamless heavy wall tubes.

Features claimed: This pump features the pressure equalizing tube which prevents accumulations of dangerous pressures within the load tube; the melo plunger head assembly; the synthetic rubber plunger which resists wear and deterioration by oil, mud, water, etc.; a modified plunger stroke which does not permit working parts to come in contact with recoveries; bottoms of Cavins-Candee or Cavins, featuring the Cavins chisel or flat bottomed type with two-way flapper valve for easy dumping, bored with solid forgings of chrome vanadium steel, heat treated and hard faced; the split lifting head for quick detachment of rope socket; a swivel rope socket to prevent unravelling of line; and the two-section design which permits ease in handling.

The California type is a general production and clean-out sand pump representing latest development in plunger type clean-out tools. It gets larger recoveries and unloads them automatically, cutting down clean-out time as much as 50 per cent, it is claimed.

Manufactured in O.D.'s of 2⅛, 2⅝, 3⅛, 3¾ and 4¾ inches. The standard length of the two sections is 55 feet over all when extended, but it can be made shorter on specifications, to run in short derricks, or with pulling masts. Made of seamless heavy wall tubes.

Features claimed: Among the qualities of this pump are the automatic self-dumping feature, and the safety dumping key; the melo plunger head assembly: a modified plunger stroke which prevents working parts from coming in contact with material being recovered, and the possibility of sanding up; and adjustable synthetic rubber plunger which resists wear and deterioration by oil, water, mud, etc., the Cavins-Candee bottom, heat-treated; and the two-section design to permit ease in handling. The Cavins Co. is located at 2853-2873 Cherry Avenue, Long Beach, Calif.

A Shell's New L. A. Bulk Plant

Offer New Pipe Vise

J. H. Williams & Co., 75 Spring St., New York City, have announced the "Vulcan" Clamp Kit Vise No. 21. This new Vise can be readily and firmly attached to bench, post, or other support without the use of bolts or screws. It is easily carried, weighs only 5¾ pounds and accommodates pipe from ⅛ to 2 inches.

Unusual efficiency is claimed for the clamping device. The clamp member is integral with the base; the clamp screw, set at a slight forward angle, as seen in the illustration, carries a swivel with thin V lip projecting from its upper edge. Consequently, the Vise can be securely and rigidly attached to bench, or other support. The drop-forged Jaws are saw-tempered for file sharpening. Chains are the same superior quality as those in Williams' "Vulcan" Tongs. Jaws, chain, nut and handle are interchangeable with similar parts of "Vulcan" Vise No. 1.

Complete information may be secured from the manufacturer.

Lane-Wells Bridging Plug

The Lane-Wells Bridging Plug is sturdily constructed as a permanent bridge. It may be run into the hole from a stript derrick, nothing being required other than a place to hang a hook and plug for lowering the bridge into place. In this way it is unnecessary to run tubing back into the hole, pour cement and do other expensive work. The Lane-Wells Bridging Plug can be run in thirty minutes time.

This Bridging Plug will always stay controlled by the Lane-Wells' Gun-perforator service units, and a small, electrically ignited charge of powder, controlled by the operator, breaks a frangible clevis, which, in turn, releases a steel spring, causing the two-way slips to set. This also expands the packing sleeve freeing the setting head from the plug.

The same accurate measuring and weighing devices used in connection with the gun-perforator are used in setting this Bridging Plug, assuring positive control and definite depth placement.

This Bridging Plug will always stay exactly where it is set, the manufacturers say. Excessive pressures either from above or below only tend to set the slips tighter, and it has a synthetic rubber packing sleeve which is practically insoluable in oil or gas. This sleeve is automatically expanded against the casing and is provided with lips on both ends, which causes fluid or gas pressure to further tighten the pack-off.

The speed and accuracy of operation, and the assurance of a complete shut-off in combination with its permanency and sturdiness of construction have made the Lane-Wells Bridging Plug widely accepted where dependability is the standard.

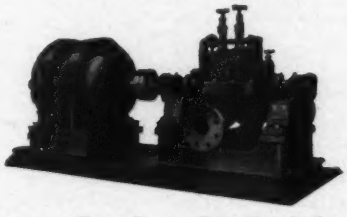
Oil Show Demonstration Quickly Sells Oil Power

H. & B. Sales Co., Ltd. of Long Beach, Calif., distributors of Wilson Manufacturing Co.'s line of drilling rigs and hoists, has just announced the sale of a Wilson Titan drilling rig with two V-12 Le Roi butane gas engines each rated with 350 h. p. to the Kern Drilling Co. of Long Beach.

Tom Rowan, one of the partners of the Kern Drilling Co., ordered this rig while attending the Tulsa Exposition and was so impressed with it that he immediately made plans for delivery of the rig to Santa Maria, where it will be used on a new contract job by Kern Drilling Co. for the Hancock Oil Co. of Calif.

Mr. Hitchcock further stated that the new Wilson Titan drilling rig is one of the most compact for power and rated drilling capacity. It is understood that the rig has a capacity of 12,000 feet.

Cameron Two Stage



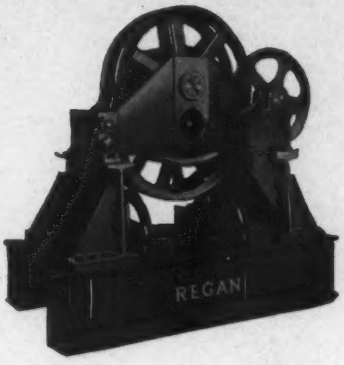
Cameron Two Stage Centrifugal Pump, Class "GT", direct connected to electric motor.

A new bulletin giving complete specifications and operating characteristics of the Cameron Class GT two-stage centrifugal pump has recently been issued by the Ingersoll-Rand Co.

These pumps are two-stage ball bearing units designed to operate at modern motor, turbine and engine speeds. They are available in capacities from 100 to 2200 gallons per minute for discharged heads up to 800 ft. (350 lbs. per sq. in.)

Two pages of typical installations of these pumps are pictured in the bulletin, number 7067, copies of which may be obtained from the Inersoll-Rand Co., 11 Broadway, New York City, or any of their branch offices.

New Regan Crown Block



Closely following the development of a double deck 7-8-9-sheave crown block by Regan comes the announcement of a companion block known as type EB. It is made with option of 5, 6 or 7-sheaves and has a capacity of 300 tons for 5-sheaves and 360 tons for 6 and 7-sheaves. It is equipped with 58" diameter sheaves in the upper deck and 36" diameter sheaves in the lower deck.

Where necessary a catline or a sand sheave attachment is available. The sheaves are chrome alloy cast steel, grooved for 1", 1⅛" or 1¼" wire. Weight of the 7-sheave model is 10,770 lbs. The staggered bearing principle is embodied. More information is available from the manufacturers, Regan Forge & Engineering Co., San Pedro, Calif.

Cavins Screen Washer

The Cavins Screen Washer is used for flushing out and cleaning screen pipe openings.

This screen washer consists of a mandrel with slip actuating device, fluid bypass valves, and a rubber packer, and is attached to the lower end of the Cavins Bailer.

Features Claimed: This device provides a false bottom against which the fluid column of the well is dropped when the slips are set, and the suction chamber valve opened by raising the tool slightly in the pipe and setting back down. The fluid column is dropped against the rubber packer when suction chamber valve is opened exerting a very effective force against the screen openings in the immediate vicinity of the rubber packer. The Cavins Company is located at 2853-2873 Cherry Avenue, Long Beach, Calif.

W. L. McLaine, vice president of General Petroleum Corp., has been in Caspar, Wyo., with J. A. Crawford, president of Republic Supply Co. of California, to witness the swabbing in of the oil company's Cole Creek wildcat.

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IMPERIAL PIPE & SUPPLY CO., 2901 Santa Fe Ave., Los Angeles. JE. 1104. tf/b

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Oil land for lease in Coalinga field, Fresno Co. Inquire 328 West Main Street, El Monte, Calif. Phone BUdlong 8-6407. 6-5-d

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Specialists to all California oil Companies, Oil land maps. Photostat copying.
Earl M. Price & Co., 1629 G St., Bakersfield
Phone 77. 6-20-d

MAPS

Newly-revised map of 140,000 acres from Shafter to Gosford, in Kern Co., Calif., including Rio Bravo, Greeley, Ten-Section; Canal & Canfield Ranch Oilfields. Shows owners, leases, wells. One inch to 2,000 ft., $4.85 plus 15c tax. Similar map Wasco, Shafter, Rio Bravo & area around deep Continental well, same price. Both maps $8.74 plus 26c tax, prepaid.
Earl M. Price & Co., 1629 G St., Bakersfield, Calif. Phone 77. 7-5-d

NEW TORRANCE OIL FIELD MAP, (active area) scale 1"=200' showing abandoned, shallow and deep zone wells as well as all lot and tract numbers. Price $3.00. Homer R. Dulin Co., Licensed Surveyors & Tank Strappers, 641 E. Willow St., Long Beach, Calif. Phone 414-61. 6-5-g

Oil Men's Calendar

June

California Natural Gasoline Assn. meets the first Thursday of each month.

4—San Joaquin Oil Men Annual Barbecue and Golf Tournament—Bakersfield.

6—Houston, Tex. Oil Workers International Union.

11—C.N.G.A. Frolic, Girard Country Club, Los Angeles.

20-24—St. Louis, Mo. American Society of Mechanical Engineers.

September

5-9—American Chemical Society, Milwaukee, Wis.

14-16—Santa Barbara, Calif., annual meeting Pacific Coast Gas Association, Biltmore Hotel.

14-16—National Petroleum Assn., 36th Annual Meeting Hotel Traymore, Atlantic City, N. J.

21-23—National Industrial Advertisers Assn., Inc., 16th Annual Meeting, Cleveland, Ohio.

23-25—A. P. I., Mid - Year Meeting, Wichita, Kansas.

October

6-7—Society of Automotive Engineers, National Regional Fuels & Lubricants Meeting, Tulsa, Okla.

6-8—American Institute of Mining & Metallurgical Engineers, Industrial Minerals Division, Knoxville, Tenn.

MAPS

Large map of Los Angeles Basin oil fields and map showing all California oil fields. Price $15.00 each on paper and $20 each on cloth. Individual state oil and gas maps of Mid-Continent and Rocky Mountain regions. Maps show geological cross sections at base. These maps indicate wells drilling, wells producing and abandoned, with depths.
All maps revised up to date of purchase.
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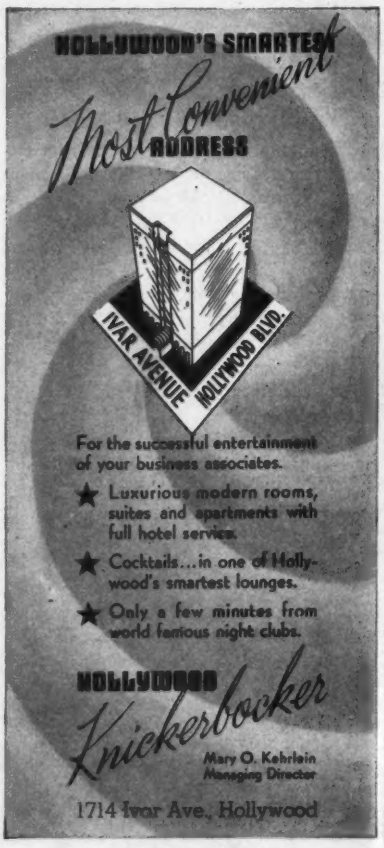
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